Clinical Lecture

ON TWO CASES OF

ANEURISM OF THE ARCH OF THE AORTA TREATED BY GALVANO-PUNCTURE.

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GENTLEMEN,—I purpose bringing under your notice this morning the cases of two patients who were labouring under aneurism of the arch of the aorta, in both of which galvano-puncture was performed. The first of these is that of the patient who lay in the side room of Ward 1, and of whom the following history was taken.

J. G——, aged thirty-four, was admitted into the Royal Infirmary on October 11th, 1873. His father died at the age of forty-five, of inflammation of the bowels, and four brothers and four sisters in infancy. His mother is sixty-one years of age, and he has one brother, aged twenty-five, and one sister, aged eighteen, in good health. For the last four years he has been a French polisher, but previous to that time he was a joiner, and he has frequently required to lift heavy weights. His diet has always been good and his habits temperate. He has uniformly enjoyed good health, and has had neither rheumatism nor syphilis. About three years ago he began to complain of palpitation, especially on exertion, and twenty-one months after this, while attending his wife, who was laid up with fever, he experienced a sharp pain in the left breast, which extended into the left shoulder and down the arm. On account of these symptoms he entered the infirmary on January 11th, 1873, and was found to be labouring under dilated hypertrophy of the left ventricle, with a double murmur at the base of the heart. Under the influence of rest, tincture of veratrum viride in five-drop doses, and syrup of the iodide of iron, he improved considerably, and was dismissed on March 27th. For four months after this he continued in tolerable health, although he suffered at intervals from the palpitation and pain; but about three months ago he observed that he was becoming hoarse, and since then the hoarseness has gradually increased, although it has never amounted to aphonia. About this time, too, he commenced to complain of attacks of dyspnœa, coming on for the most part when speaking or walking rapidly, and giving rise to a feeling of suffocation, referred to the region of the larynx. For some months also he has had a short, dry, somewhat hollow cough, unaccompanied by expectoration. About five weeks prior to his admission a pulsating tumour was detected by a medical man in the jugular fossa, but for a couple of weeks before this he felt "a beating above the breast-bone." When the tumour made its appearance the palpitation and pains in the chest subsided. When first discovered it formed a well-marked prominence at the root of the neck, was about the size of a hen's egg, and was tender to the touch. After the appearance of the tumour some difficulty of swallowing was experienced, and he had the feeling "as if the food was going the wrong way." This symptom has latterly in great measure disappeared. He does not sleep well at night, which seems to be due to the pulsation in the tumour. He perspires freely, has been losing flesh rapidly, and frequently changes colour. Tongue moist and slightly coated; appetite variable; bowels uniformly costive; pulse 66, natural; temperature 98·4°.

On uncovering this man's chest, and placing him upon his back, a distinct swelling was observed at the top of the sternum, and inclined a little to the left side—a swelling which was not very prominent, but which occupied an area about equal to that of a hen's egg. It was to the eye a distinctly pulsating swelling; and, on applying the hand, it was found to be very soft, and not only the seat of pulsation, but also, what is a very characteristic symptom, of expansion, and each time the ventricle contracted a distinct vibration was experienced, what is called "purring tremor." On percussion, there was marked dulness and increased resistance, not only over the tumour, but also over the upper part of the manubrium sterni, and extending a little into each subclavicular region. On applying the stethoscope, a loud, rasping, systolic murmur was heard over the tumour. It was also heard over the whole of the chest, in the vessels of the neck and arms, although more markedly in those of the right than in those of the left side, and in the thoracic and abdominal aorta; but it was inaudible in the femoral vessels. The history of this case and these physical signs point very conclusively to the existence of an aneurism of the arch of the aorta. But let me point out to you before passing further, that in cases of intrathoracic tumour you may have a somewhat similar history, and you may have likewise most of these physical signs, and therefore mistakes are apt to be made. You may even have the physical signs of pulsation and of murmur: of pulsation, because the tumour may be lying upon the aorta, or one of the large vessels from which it may be communicated; and of murmur, because it may be pressing on the aorta, and obstructing the flow of blood through it. There were, however, two physical signs in this case which are not observed in cases of tumour. One of these is "purring tremor," and the other the feeling of expansion in addition to that of pulsation. Then there were other features in the case which confirm our diagnosis, if such confirmation is needed. On examining the superficial vessels—of the arm, for example—we observed that these pulsated very visibly; that they were tortuous, and felt like firm, hard, almost tendinous cords. In fact, we had here signs indicating a degeneration of the coats of the superficial vessels; and we know that when the superficial vessels are degenerated, in all probability the coats of the aorta are degenerated too, and that a degeneration of the coats of the aorta is the usual predisposing cause of aneurism. Then, on examining the heart, we found that the apex-beat was displaced. It was situated 3¼ in. below and 1¼ in. to the left of a vertical line drawn through the nipple. The impulse of the heart was heaving; it was observed over a preternaturally extensive area, and there was increased dulness on percussion in a downward direction, and to the left. That is to say, there were the usual symptoms of dilated hypertrophy of the left ventricle of the heart—a condition which is very usually, though not invariably, met with in connexion with aneurism of the aorta, owing to the obstruction which it offers to the onward passage of the blood. In cases of aneurism, too, and for a similar reason, we often find inequalities in the pulses on the two sides of the body. There was not much difference in the pulse at the wrists in this case, but in the right carotid the pulsation was very much stronger than in the left. Again, in non-aneurismal tumours, and particularly in cancerous tumours, which are those most frequently observed within the chest, there is very often a marked distension of the superficial veins. In aneurism this is not generally a marked feature, because the aneurismal tumour is soft and yielding, and does not compress the parts to the same extent as a solid, and therefore unyielding, tumour. In our patient there was no marked distension of the veins. And, lastly, the sex of the patient was just what we might expect in a case of aneurism, which is much more frequent in males than in females. There are certain symptoms frequently observed in cases of aneurism of the aorta, and which were conspicuous for their absence in this one. Let me mention a few of these. Sometimes the thoracic duct is compressed, and then, owing to the system being deprived of its nutrient supplies, there is rapid emaciation. Our patient was not much emaciated. Again, in a case in Dr. Scott Orr's wards, in which last Monday I performed galvano-puncture, and which is progressing favourably, there was dilatation of the left pupil from pressure upon the sympathetic, and dysphagia from pressure upon the œsophagus. These symptoms were absent in our case In a good many cases there is pressure upon the recurrent nerve; but in this one, although the patient was hoarse, there were none of the usual symptoms of pressure upon it: there was no paralysis of the vocal cords; and there were none of those attacks of suffocative dyspnœa which constitute such a distressing feature of many cases of aneurism of the aorta. And, finally, there was no evidence of distinct pressure upon the bronchi, because there was no marked shortness of breath, and the air entered apparently with equal freedom into both lungs.

This patient was admitted on the 11th of October, 1873, and we thought it right, for a short time at all events, to watch him without carrying out any very energetic treatment. We kept him in a state of perfect repose in bed; we regulated his bowels with castor oil, in order to prevent any straining at stool; and, with the view of calming down the nervous and circulatory systems, we gave him five-and-twenty grains of chloral at bedtime. It soon became evident, however, that the tumour was progressing rapidly towards the surface, and the only hope for him therefore, in my opinion, was to give him the chance of the operation of galvano-puncture. This was performed seven times in all—namely, on Oct. 22nd and 26th, on Nov. 2nd, 7th, and 23rd, and on Dec. 1st and 14th. In each operation a Stöhrer's battery with large cells was used; and, unless I state to the contrary, you may take it for granted that only one needle was used and connected with the positive pole. The first operation, then, was on the 22nd of October, on which occasion eight cells were used, and the operation lasted half an hour. On Oct. 26th the tumour was not in the least diminished, but, on the contrary, was becoming more prominent towards the left side, and the patient complained of a feeling of soreness across the root of the neck. On this day, therefore, the second operation was performed. Six cells were used for ten minutes, and then eight for fifty minutes—one hour in all; and during the whole of this time the patient complained of burning heat in the aneurism. On Oct. 28th the tumour was somewhat firmer, and a distinct hard line was observed along the track of the needle. The skin covering it was the seat of a slight inflammatory blush, and the patient complained of a feeling of stiffness across the root of the neck, and occasionally of "stounding" pains in the tumour itself; temperature 99·3°. On account of these symptoms of reaction we only allowed him light food—milk diet and soup. We gave him a draught of castor oil, and applied ice-cold cloths over the tumour for half an hour at a time. On Oct. 30th the pain in the tumour had disappeared and the temperature had fallen to 98·4°, but the feeling of stiffness and soreness was even more marked, and there was some complaint of pressure upon the windpipe, of shortness of breath, and of weakness. On Nov. 2nd the third operation was performed, the needle being introduced into the upper part of the tumour. Eight cells were employed on this occasion, and the operation continued for thirty minutes, during the whole of which time the patient complained of intense burning pain. This, however, was soon relieved, as on the former occasion, by the application of iced cloths. On the 3rd of November, as he complained a good deal of palpitation and of pulsation in the swelling, the tincture of veratrum viride was prescribed in doses of three drops, gradually increased to ten, three times a day. On the 6th of November the tumour felt firmer. There was no pain, and the patient felt comfortable. On the following day the fourth operation was performed. On this occasion two needles were made use of—one connected with the positive and one with the negative pole. They were introduced parallel to one another, and an inch and a quarter apart. The operation was continued for thirty minutes, four cells being used for the first twenty, and six for the remaining ten minutes. During the whole time the patient complained of intense burning pain. Now mark what happened on withdrawing the needles. On withdrawing the needle connected with the positive pole not a drop of blood escaped; on extracting the needle connected with the negative pole, however, a jet of blood followed, which at first was dark, but soon became florid, and spouted in jerks as from an artery of moderate size. Nearly an ounce escaped in all, and the hæmorrhage was arrested by the pressure of a graduated compress of lint. I shall refer to this again. On the 23rd of November it was reported that the patient had had no pain since the last operation, and that the heart's action under the influence of the veratrum viride was calm. On examining the tumour on that day it was found to be less firm and more prominent, and in the centre there was distinct pointing, and the skin in this situation had a deep brownish-red tint. The fifth operation was performed on this day. One needle was used, which was introduced into the central part of the tumour, the point of the needle being immediately opposite the part which was pointing. Six cells were used, and the operation was continued for thirty minutes. Burning heat was complained of, but this was relieved as before by the application of iced clothes. After the operation the pulse was 85, and the heart's action excited, but this was relieved by the administration of ten minims of the tincture of veratrum viride. On the 1st of December the tumour was observed to be much more prominent, and pointing most distinctly, and the discoloration of the skin had much extended. Galvano-puncture was performed for the sixth time, six cells being used for fifty minutes. On the 10th December my assistant, Dr. Strother, being summoned to the patient, found that there was a slight oozing of bloody serum from the most prominent part of the tumour. It was arrested by the application of collodion. On the 14th December the seventh and last operation was performed. Three needles, which were not insulated, were used on this occasion, all in connexion with the positive pole, the needles being inserted so that the points were opposite the most prominent part of the swelling. Six cells were used, and the operation was continued for an hour. During the operation there was a slight oozing of blood, owing to the displacement of the collodion. On the 15th December, at half-past four o'clock in the morning, a considerable stream of blood was observed to be flowing down the chest, having separated the collodion covering. The whole tumour was enveloped in narrow strips of lint, soaked in collodion. Over these, strips of gutta-percha tissue were placed and sealed up with chloroform, which for the time completely arrested the bleeding. Next morning, at half-past seven, the patient became very weak and vomited. Dr. Strother placed his hand upon the tumour in order to give it support, and while the patient was retching something distinctly gave way, and he exclaimed, "There it is!" This was followed by a gush of blood from all sides, which quickly saturated the sheet and pillows, and for a time he was pulseless. The hæmorrhage was again arrested as before, and the vomiting ceased. After the administration of iced champagne the patient rallied a little, but from time to time the bleeding recurred, and he sank, exhausted and insensible, on the 18th December, at 10.30 A.M.

On post-mortem examination, the surface of the body presented nothing remarkable, with the exception of a dark prominent mass, which protruded from the skin immediately above the supra-sternal notch, and inclined a little to the left side. It had an oval shape, and measured about three inches from above downwards, and two inches across. Its surface was very irregular, and it was evidently composed of coagulated blood. It was found to communicate, by an aperture in the skin, measuring two inches from above downwards, and one inch across, and about the level of the thyroid gland, with an aneurism of the aorta. The heart was very much enlarged, the left ventricle in particular being hypertrophied and dilated. Owing to the way in which it was thought right to remove the parts, its exact weight could not be ascertained, but it probably weighed from twenty to twenty-two ounces. Numerous calcareous plates were found in the aortic arch, which was somewhat wider than natural. A very large sacculated aneurism sprang from the upper surface of the transverse portion of the arch, with which it communicated by an aperture large enough to admit two fingers, and situated just before the giving off of the large vessels, none of which were directly involved in it. The aneurism was somewhat oval in shape, its long axis, directed from above downwards, measuring between five and six inches. It lay in front, and a little to the left of the larynx and trachea, which it forced slightly backwards and to the right, but it did not seem seriously to interfere with these parts. Although the large vessels were not at their origins involved in the aneurism, the left carotid and subclavian were found to be firmly adherent to, and in part imbedded in, the walls of the sac, while the innominate was only very slightly attached to it. The sac was almost completely filled with old and recent clots, and at one place, almost in the middle of the sac, and in a line with one of the needle punctures, there was a very distinct stratified coagulum, which was much paler and firmer than the rest. The other organs of the body were healthy. [The preparation shown.]

There is nothing to be proud of in the treatment of this case, but I think it always right, when the opportunity occurs, to tell you of unsuccessful, as well as of successful, cases; for often as much instruction is to be obtained from our failures as from our successes.

(To be concluded.)

ABSTRACT OF

Lectures ON ELECTRO-THERAPEUTICS.

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LECTURE IV.

METHODS OF USING ELECTRICITY.

UP to a certain point both forms of electricity (galvanism and faradism) are applied in the same manner. The conducting wires of the battery are furnished with so-called current carriers or rheophores. The most common form is the sponge-holder, which consists of a brass conducting tube (into which a sponge may be inserted) mounted upon an insulating handle made of ebonite. The insulating handles being held by the physician, the sponge-containing tubes are able to conduct the current to the patient's body. You will find that some old-fashioned magneto-induction apparatus are furnished with rheophores which are not insulated. Such are of no use, or, rather, are worse than useless. The junction between the conductor and the rheophore is generally placed in the middle of its length, between the conducting tube and the insulating handles. This is the most convenient place for it. Some rheophores have this junction situated at the extremity of the handle—at the heel, as it were. This is an inconvenient position, because when the rheophores are held in the same hand the two conducting junctions are liable to touch each other, and the current does not then travel into the sponges. The rheophores should not be too big and unwieldy, and the handles should be slightly hollowed out, to allow of their lying with ease between the fingers. It is convenient to have the sponges fixed into the tubes securely, so that, whilst sponging the surface of the body, the sponge shall not escape from the tube. For this end I have had the tubes of a pair of rheophores perforated, and have adopted the very simple expedient of transfixing the sponge at its base with a piece of wire.

We have said that the dry epidermis is so bad a conductor that it may almost be considered as an insulator, and to increase its conductivity it is necessary to moisten it. If two rheophores be placed on different parts of the body, and if a current of a sufficient strength be employed, the skin having been previously well moistened, the current will travel through the body from one rheophore to the other. The current, galvanic or faradaic, entering by one rheophore, having once overcome the resistance of the epidermis, encounters the soft moist tissues, and all of these being good conductors, it spreads out, as it were, or ramifies in them (undergoing thereby a great diminution of density) till a point midway between the rheophores is reached, when the diverging paths begin to converge till they reunite at the other rheophore. Since this ramification of the current causes a diminution of its intensity, we see that the intensity of the current is diminished by the wide separation of the rheophores. If, therefore, we wish to influence any particular region very strongly, our end is in part obtained by a closer approximation of the rheophores. The denser the current the greater is its physiological action. We may regulate the density of the current by the size of our rheophores. If one rheophore be of large surface and the other of small surface, it is evident that the current will be most dense in the neighbourhood of the smaller.

Rheophores do not always take the shape of sponge-holders, but these will be found the most generally useful for ordinary purposes. They are made of any conducting material, metal or carbon being generally employed, and are made of various sizes and shapes, according to the purpose for which they are used; we may use our rheophores either dry or moistened. If we wish merely to influence the skin, we may use them dry; but if we wish to affect the deeper tissues, it is absolutely necessary to moisten them.

If we wish to faradise the skin, we use both our rheophores dry, or it is better to use one dry and one moist. We place the moist rheophore upon some indifferent part of the patient's body, and the dry one upon that part of the skin we wish to influence. If a very gentle effect is desired, we may have recourse to the manœuvre known as the electric hand, which, I believe, we owe to the ingenuity of Duchenne. The skin should be dried and powdered, and one moistened rheophore being placed upon an indifferent spot on the patient's body, the other should be held in the hand of the operator, who may then, with the back of this hand, previously dried and powdered, stroke the dried and powdered patch of his patient's skin. The effect is a strange crackling noise, accompanied by a gentle tickling-pricking sensation. It is generally used only about the face, and whether it is ever of any use I am unable to say.

If we wish to influence the skin more strongly, we may do so by means of a pointed metallic rheophore held persistently at one spot, or by brushing the surface of the skin with a metallic brush.

If we wish to influence the muscles (and it is the muscles which we most commonly need to influence in electro-therapeusis), we must first overcome the resistance of the skin. Salandière was the first to attempt to influence the individual muscles, and this he did by thrusting insulated needles through the skin into the very muscles themselves—a formidable proceeding, which is, happily, no longer necessary, since the skin, by being thoroughly moistened, is converted into a good conductor. The moistening of the skin should be effected by means of *hot salt and water*. Saline solutions conduct far better than pure water, and hot water softens the skin far more quickly and effectually than cold.

How should we seek to influence the muscles? This has been a vexed point, and has been hotly disputed, and, as well as other vexed points, has given rise to such unseemly quarrels that the *odium electricum* has become recognised as the rankest form under which the *odium medicum* is to be found. When one sees an army of careful observers on either side contending with wonderful bitterness as to whether or not the muscles are best stimulated directly or indirectly, as to whether or not the sympathetic nerve-trunk is amenable to galvanism, and as to whether the polar method or the direction method of using the continuous current is to have the preference, one is naturally led to the conclusion that there must be some right on both sides, and as a consequence, if both sides are in some degree right, they must both be—since they differ *toto cœlo*—in some degree wrong. The fact of the matter is that when once the electric current has passed the skin it is very much beyond our control, and it is quite as difficult to limit its action to a certain point as it is to prevent its action from influencing any particular spot. In this way, I believe, we may account for the great benefit which often follows the employment of electricity in the hands alike of polarisers, directionists, localisers, and others. Duchenne is the originator of the so-called "localised faradisation." In the treatment of disease he employs faradism almost exclusively, and lays it down as a rule that, whether we want to influence nerve-plexuses, nerve-trunks, nerve-filaments, or muscles, the rheophores should always be approximated as closely as possible. In this way there can be no doubt that he gets currents of the greatest possible density, and such as are therefore capable of exercising a maximum amount of stimulation on the parts. We can influence a muscle in two ways:—(1) By acting upon the muscle itself, which is called direct faradisation; or (2) by acting upon the nerve which supplies the muscle, which is called indirect faradisation. Duchenne always prefers the former method when practicable—that is, with all superficial muscles. When employing direct faradisation, he directs that the rheophores be held in one hand, the other being left free to regulate the strength of the current. "To completely faradise a muscle," he says, "it is necessary that the rheophores should cover the whole surface of that muscle, and if they are not big enough to do so, they must be applied successively on all points of the surface. The thicker the muscle, the stronger must be the current, for if the current is feeble the excitation of the muscle only takes place in the superficial layers." For big muscles, such as the deltoid, trapezius, or extensors of the thigh, big sponges may be used, and these sponges should be "promenaded" over the whole extent of the

muscle. For smaller muscles, such as the interossei of the hand or foot, or for the facial muscles, smaller rheophores are more convenient. They may be flat metal discs covered with wash-leather, or they may be conical. The disc is a very useful form of rheophore, for you may use either the broad flat surface or the narrow edge.

Duchenne claims for his method that, by strictly localising the current, we run very small risks of producing general effects. It is well known that, in certain recent cases of paralysis accompanied by active changes in the nerve-centres, faradisation, especially if not accurately localised, has produced untoward results; and it is to avoid such results that Duchenne's method is used.

The indirect method—the method proposed by Remak and worked out by Ziemssen—consists, not in stimulating the muscular fibres themselves, but in acting upon the nervous twig which is in direct communication with the muscle. In this way a thorough contraction of all the fibres supplied by the nerve is ensured; and the champions of this method further claim for it that it is more physiologically correct to stimulate a muscle through its proper channel of stimulation. In Ziemssen's work, "Die Electricität in der Medicin," you will find some careful drawings, in which are accurately delineated the exact points on the surface of the body at which the various motor-nerve branches supplying the different muscles are most readily accessible.

To practise this method it is necessary to have two rheophores of different shapes: one of large surface should be placed upon some indifferent part of the body, such as the sternum or the hand; the other should be olive-shaped, with a pointed extremity, and should be applied directly to the motor point. As to the motor points, there is no mystery about them, and your knowledge of anatomy and a little practice will enable you to hit upon them.

There are certain points in the employment of galvanism which require special mention. All the differences of method in employing galvanism arise mainly from the fact that the current flows continuously in a definite direction, and has very decided chemical and thermal effects, especially at the negative pole.

The galvanic current may be employed continuously, or it may be used interruptedly. If employed continuously, we must take care that the current is not too intense, and that the negative pole is not placed upon too sensitive a part of the skin, otherwise we shall produce inflammation and blistering at the spot where it is applied.

If the galvanic current be employed for stimulating muscles to contract, it must be interrupted; for you will remember that contractions only occur at the moment of making or breaking the circuit. For stimulating muscles, the direct or the indirect method may be adopted, and the same considerations as to the size and the position of the rheophores hold good as with faradism. The interruptions may be effected by constantly removing or replacing one of the rheophores; but this is not a good plan if we wish accurately to observe the excitability of a muscle. It is better to leave the rheophores *in situ*, and make the interruptions by means of a commutator or a cogged wheel. Some authorities lay great stress upon the direction which the current takes either *down* the limb (the direct current), or up the limb (the inverse current). The former is said mainly to influence motor nerve-fibres, and the latter sensitive nerve-fibres. I am not aware that these assertions are founded on any well-authenticated facts. The facts have not come under my own observation.

Let us try an experiment on this man. You see that we place the positive pole in the axilla, and the negative over the ulnar nerve. On closing the circuit we stimulate the ulnar nerve, and get contraction of the muscles supplied by it. If we reverse the current, and make the axillary rheophore the negative pole, then, on closing the circuit, we get much more movement; for the arm is flexed at the wrist and elbow, and the hand is supinated. This is an apparent contradiction to the assertion that the descending current has most power in stimulating motor nerves. The real explanation is that, in the first instance, the cathode exerted its influence only on one nerve—the ulnar; while in the second instance it stimulated all three cords of the brachial plexus.

Benedict, of Vienna, lays great stress upon the position of his rheophores, and he distinguishes several varieties of current. Thus, if one rheophore be placed upon the spinal column and the other on a nerve or muscle, he distinguishes the currents as *spinal nerve currents* or *spinal muscle currents*; or if one rheophore be placed on the nerve and the other on the muscle, he speaks of it as a *nerve-muscle current*. We may imitate him, and distinguish these currents by letters —S.N.C., S.M.C., N.M.C.,—which will be found convenient when making notes of cases. He lays it down as a rule that the *locus morbi*, be it brain, spinal cord, nerve, or muscle, should always be included between the rheophores.

There is one method of using galvanism which I believe is almost exclusively practised by myself. This is the combination of a continuous galvanic current with voluntary muscular exercise. There are many cases—as you will find when we come to speak of therapeutics—in which, without any paralysis in the ordinary sense, there is considerable impairment of nervous or muscular activity; and it is in these cases that I have found the above-mentioned method of great and undoubted use. If one wishes to influence a certain muscle or group of muscles, one polarises the nerve supplying it or them with a very mild galvanic current, so as to produce a maximum amount of cathelectrotonus in the polarised part. In this state a nerve has its irritability and conductivity for stimuli increased. Cyon, by polarising his ulnar nerve with a weak descending current and stimulating the portion of nerve below the cathode with the faradaic current, found that with the same amount of faradism there was increased irritability and activity of the nerve (as measured by the contractions of the adductor of the thumb) when the circuit of the current was closed, than there was before its closure. The excitability of the nerve for artificial stimuli was increased. If for artificial stimuli, why not for mental stimuli also? My clinical observations seem to point to the fact that during the passage of the polarising current the voluntary mental stimulus acts with greater effect on the muscles, or, in other words, the contracting power of the muscles is increased. This increased activity on the part of the muscles is a fact of which I have no doubt. The true explanation is, however, more doubtful. It may be due to the electrotonic condition of the nerve, or it may be due to the action of the current upon the vaso-motor nerves and the consequent change brought about in the nutritive activity of the muscles or nerves.

The great power which the galvanic current has upon the peripheral circulation (whatever may be its influence upon the circulation of central organs) is a fact of which nobody who has, even to a small extent, employed electricity can entertain a doubt.

A NOTE ON THE

MODE OF PRODUCTION OF CREPITANT RHONCHUS.

BY OCTAVIUS STURGES, M.D.

CREPITATING RHONCHUS—the "minute" crepitation heard best in pneumonia—may be exactly imitated, as Dr. Williams first noticed, by rubbing a lock of one's hair between the finger and thumb; it may be imitated, too, less closely, by the cracking sound of salt thrown upon the fire; both these resemblances being purely accidental, and indicating no corresponding similarity of mechanism. But crepitating rhonchus may be imitated, moreover, by crumpling within the palm fine tissue-paper. The likeness is not striking at first, but when the fingers have learnt to exercise a correct pressure, and the paper is neither too tightly nor too loosely crumpled, its crackling may be brought nearer and nearer to the lung sound. Similarly, if a small piece of moistened animal membrane—the skin of a sausage or poloney—be rolled up and squeezed between finger and thumb, it also (of the proper moistness and with the proper pressure) will *crepitate* like the inflamed lung or the rubbed lock of hair. Thus, though the true crepitant rhonchus is frequently confounded with other sounds, this is from no want of kindred sounds for comparison. The best of these is, with most of us, continually within reach of the fingers.

Yet, while the resemblance obtained from the lock of hair is sufficiently accurate even to satisfy Dr. Walshe, the hearer is not unaffected by the knowledge that this is a "rubbing sound," while the morbid one is not. So long as the mind is alive to this real difference the ear is slower to appreciate the mere sound likeness. We seek a sound with which to compare minute crepitation which shall resemble it altogether, in mechanism as well as in tone.

Now, it is not unimportant to observe, that nobody knows for certain what this mechanism may be. The theory that the crepitation is caused by the passage of air through liquid of a certain consistence contained in the air-cells is completely upset by the observation that the sound occurs with fluid of *any* consistence; nor can any reason be alleged why, upon this hypothesis, there should be a crepitus with the entrance of air but none with its exit—why the rhonchus should be inspiratory only. The presence of fluid accounts for a noise, but not for this noise. A later theory refers the sound to the repeated unsticking of the air-cells with every act of inspiration—an unsticking which must take place, as Dr. Waters points out in his admirable lectures, in the air-sacs themselves, since the finest bronchules may be found unaffected. To this view there are many obvious objections which need not be dwelt upon, for the single observation of Dr. Walshe, that "crepitant rhonchus of typical perfection may occur with the purest watery œdema,"* is of itself absolutely fatal to it.

If, then, neither bubbling nor sticking is at the bottom of this sound, what remains? May it not be that it is produced by an agency strictly analogous to that which will cause a similar sound out of the body—not the rubbing of the lock, or the explosion of salt, but the squeezing of moistened animal membrane?

I suppose, with others, that the condition of lung—be it pneumonic or not—which is essential to the production of crepitant rhonchus is a condition of œdema; that the air-sacs, and the air-sacs alone, contain fluid. In true pneumonia, probably, this effusion will not be equally distributed; some cells will be full of it, others less full, and some empty and even over-dry. Moreover, the consistence of the exudation will be watery in one part, more viscid in another, and in some places beginning to coagulate. This is in accordance with the pattern, not, indeed, of all, but of most, pneumonias that we come to see after death; the process advances unevenly, so that various stages of inflammation are to be found side by side in the same lobe.

What should be the effect of an inspiration upon such a lung? By that act air would be brought into such cells as were yet unoccupied, while at the same time the adjacent and loaded cells would be subjected to an increasing pressure so as at length, with the deepening breath, to produce a noise by their oozing. The pressure arises from the fact that fluid intrudes where air is due. The volume of the lung and the force of inspiration remaining unaltered, it would be proportioned to the amount of air proper for aeration which was thus excluded. The precise circumstances of the living organ cannot, of course, be reproduced after death, but any œdematous lung will crepitate upon pressure.

Consider the essential characters of this rhonchus. It occurs with inspiration only: when first observed, and again when about to depart, it is heard only at the end of inspiration; the deeper this inspiration the more distinct is it; when it has persisted for a longer time than usual it becomes audible, *sometimes*, with expiration as well as inspiration, and may even be louder with the latter; occasionally it is absent altogether from first to last. All this accords with the hypothesis. At first, while the fluid accumulation is inconsiderable, it is only with a full inspiration that the pressure reaches it, or, rather, that it is sufficient to produce that oozing of fluid upon which the sound depends. The rhonchus, therefore, is either not heard at all, or heard only at the end of inspiration. Soon, however, the fluid increases, and then the entrance of air is immediately followed by morbid sound; the rhonchus is heard from beginning to end of the inspiration. But presently, as the exudation increases in quantity, it alters in its physical character. It becomes more and more viscid, and at length wholly or in part consolidates. It is now no longer squeezable, or, if squeezed, it requires a greater pressure before an oozing sound is obtained from that portion of the exudation which still remains fluid. The rhonchus, if audible at all, is audible now only at the end of inspiration. It reverts, that is, to the character it had at the beginning, although the same physical conditions do not return.

And how comes it that when this crepitant rhonchus has existed for some time it begins to be heard—in certain cases, not always—with expiration as well as with inspiration? The hypothesis would account for this also. It is known that when a fluid exudation has occupied the pulmonary alveoli for a longer period than usual, the alveolar walls themselves become affected by reason of their contents. Through continued soaking with a fluid of the proper consistence, they swell out and eventually stiffen. Such lungs are described as exhibiting a notable loss of elasticity. When brought to that condition the lung-tissue may not only emit the particular sound in question when squeezed (that is with inspiration), by virtue of the fluid that it holds, but, furthermore, when the pressure is removed and the fluid again distends the air-sacs (that is, with expiration), the stiffened walls creak as they move. This expiratory rhonchus is, then, both more obvious than the inspiratory and of coarser quality, just as a wet sponge creaks loudest, not when it is pressed, but when the pressure is relaxed.

No doubt some of the phenomena of crepitating rhonchus are satisfied by the prevailing theory—that, namely, of a sudden and forcible expansion of glued together parenchyma; but they agree still better with this one. The entire absence of this kind of crepitation in some rare cases of pneumonia is probably due to the very rapid solidification of the exudation. There is neither bubbling nor unsticking nor oozing; the vesicular respiration is suddenly abolished, and in that part of the lung whence this sound comes there is silence. Admitting that the seat of the rhonchus is the air-sacs, this is intelligible upon all the hypotheses alike. But why is minute crepitation absent when there is no such rapid consolidation? Why, especially, is it absent sometimes in pleuro-pneumonia, where pleuritic stitch is so acutely painful that the patient fears to fetch the breath he so urgently needs? It can always be said that the sound is out of reach. But suppose a large portion of lung to be implicated, yet not solid. It cannot be maintained that an individual so circumstanced (I am quoting an actual occurrence) could by any exercise of caution exclude the air from a particular district of his lung; its murmur, indeed, is to be heard here as elsewhere. But it can very easily be maintained, where the pain of inspiration is excessive, that a man may so far command himself as to stop short of a full breath, dividing his troubles within certain limits, in his own way, between dyspnœa and pain, and that this bated breath would fail to furnish the pressure requisite for crepitation.

We know, indeed, what can be done, in the way of sound, by the mere unfolding or unsticking of lung. What else is the so-called "redux crepitation"? The peculiar *gush* of this sound, its occurring for a few times only with forced inspiration, and ceasing abruptly so soon as the lung has become fully inflated, are characters so marked and special, that the student must often regret the very trivial importance of a sign so easily recognised. It will certainly never remind him of minute crepitation.

Perhaps the objection will be made that crepitating rhonchus is a "dry sound," while the sound of oozing is emphatically a moist one. If this be so, all the theories are faulty alike, for all agree in recognising the agency of fluid. And inasmuch as the lung which yields the sound is not drier but wetter than in health, it seems not improbable that this "sensation of dryness" is excited by moist material, and, therefore, like many other sensations, delusive. For my own part, I would rather side with those who defer offering descriptive adjectives for this sound until such time as clearer notions are obtained as to its mode of origin.

More might be noted were space less valuable. The character of this rhonchus in infancy, its transition into the obviously "moist form," the delay which is sometimes noticeable in its occurrence, and the harsh respiration which immediately precedes it, are all points to be dwelt upon in my favour. It is unnecessary. If my view be the true one, it will assert itself; if it be false, no ingenuity can make it stand. Anyhow, the fact that the prevailing theories upon the subject are admittedly untenable is a sufficient excuse for suggesting another; nor does it seem to me unreason-

* For a concise and able statement of the hypotheses on this subject, and the objections to each, see Dr. Walshe on the Lungs, p. 110, fourth edition.

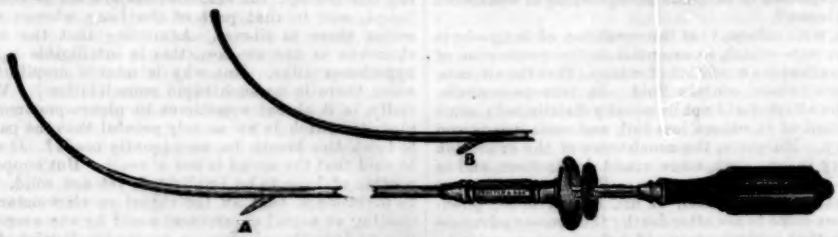
able, having regard to the physical state of the part where this rhonchus is produced, and the essential characters of the sound itself, to have recourse to this agency of pressure, and thus to bring post-mortem crepitation and living crepitation under one category.

Wimpole-street.

URETHROTOMES FOR NARROW STRICTURES.

BY BERKELEY HILL, F.R.C.S.,
SURGEON TO UNIVERSITY COLLEGE HOSPITAL.

IN THE LANCET for May 23rd, 1874, Mr. Teevan describes an instrument he has devised for cutting narrow strictures. It is Maisonneuve's urethrotome introduced in a manner different from that adopted by Maisonneuve himself. As Mr. Teevan appears to be unaware that I showed to the British Medical Association at its congress in August last a urethrotome for cutting very narrow strictures, the mode of introducing which is precisely that employed by Mr. Teevan, I venture to present a comparison of the two instruments, as I believe mine to be free from the objections that have led many surgeons to discard Maisonneuve's instrument for some years past. Before doing so, I may remark that believers in cutting or splitting strictures of certain kinds may congratulate themselves that Mr. Teevan, who has not infrequently advocated gradual dilatation by flexible bougies as the sole safe and efficient method, has at last turned his attention to cutting. However, this by the way. The contrivance for introducing this urethrotome—namely, by slipping its point, which is perforated by a "tunnel" or eye, along a whalebone bougie previously passed through the stricture, is attributed by Mr. Teevan to Dr. Gouley, of New York; I believe, however, that Dr. Van Buren, the eminent surgeon of that city, whose assistant Gouley was, is really the originator of the idea, though it has been adopted and perfected by Dr. Gouley. Whoever is the inventor, the plan has been familiar to those who give attention to urethral affections for some years, and being no novelty, I laid no stress upon it when describing my urethrotome to the Association.



The objections to Maisonneuve's mode, which is adopted by Mr. Teevan, of applying the cutting edge to the stricture, are—first, that the sharp edge of the incisor is passed down the urethra without protection. It is true that the healthy elastic part escapes, or is only slightly wounded, by the cutting edge, and the amount of mischief produced is usually not serious. But the second defect is most important; the knife attacks the stricture from before backwards, and it is almost impossible to prevent the stricture from being pushed back along the staff, and only partly divided, so that when the partial incision has healed the stricture is as bad as ever. Mr. Teevan suggests that the healthy part of the urethra can be shielded by covering the knife with cocoa butter, and this may be a sufficient guard; but the main objection still remains, that of cutting from before backwards—a plan which has been proved over and over again to be quite unsatisfactory. Bearing this in mind, I was able, by Mr. Coxeter's ingenuity—for this part of the instrument is entirely his,—to get a mode of passing the cutting edge through the stricture *before* the incision commenced, and thus cutting from behind forwards, or from the bladder towards the meatus. The description of my instrument was published as part of the proceedings of the surgical section of the British Medical Association in the *Journal* for Nov. 29th, 1873, and is briefly as follows:—A whalebone bougie, less than one-fourth of No. 1 catheter in diameter, is passed through the stricture to the bladder; along this the tunneled eye of the urethrotome is threaded, and the instrument conducted down to the stricture, and through that to the bladder. If the operator is in doubt about the position of the bougie, he may reassure himself by running a No. ½ catheter along the whalebone guide, and, having allowed urine to escape, withdrawing the catheter, leaving the guide *in situ*, on which to pass the staff. When the staff is passed fairly through the stricture, a slender rod, carrying a knife at its end, is pushed along the interior of the staff until the point of the knife reaches a short incline, which turns it out against the wall of the urethra just behind the stricture (see A in the figure annexed), the limits of the stricture having been previously ascertained by a manœuvre of a very simple kind. When the knife is in place, the whole instrument is drawn forwards, and the cutting edge is carried along the floor of the urethra to any depth required short of half an inch, the depth of the incision being regulated by a screw at the handle. Thus the knife is wholly contained within the staff until it is projected therefrom behind the stricture, and can be drawn in again as soon as it has traversed the stricture. Nor is the instrument large: at its greatest width it is less than a No. 2 catheter, and at its point is considerably smaller. Mr. Teevan does not mention the calibre of the staff part of his urethrotome, though he states that the curved end has the thickness of a No. 1 catheter. But the straight grooved part which carries the Maisonneuve's knife cannot be much less than a No. 2 catheter. Mr. Teevan takes credit for his instrument that it does not, like Maisonneuve's, cut on coming out as well as when going in. Now Maisonneuve at first did not make his instrument cut while being withdrawn, and added this power in order to supplement the imperfect dividing action of the knife when only pushed against the stricture. Thus Mr. Teevan's modification is still open to Civiale's objection that the Maisonneuve knife "promenades the urethra, cutting here and there"; it only cuts a little less in its "promenade" than does the more finished and elaborate instrument of Maisonneuve.

Having pointed out that while equally adapted for narrow strictures, our instruments differ in the mode they incise, and, as I believe, much to the advantage of my own, I should like to add a few words on a difficulty in using the guide-bougie and tunneled catheter which longer experience has taught me, but which I have not yet succeeded in altogether overcoming. I am led to do this because neither Dr. Gouley nor Mr. Teevan mentions it. Indeed, the reader who has not tried to pass tunneled catheters or guide-bougies would suppose the proceeding to be a most simple one. This is the difficulty. Old strictures are often very irregular or tortuous internally, and it is no easy matter, sometimes, when they are also very narrow, to "wriggle," as Mr. Teevan well expresses it, the stiffish whalebone through the stricture; a limp bougie will not serve for a guide. Nevertheless, this is perhaps only a question of time and patience. But, worse still, the tunnel of the staff is occasionally so locked on the whalebone in the tortuous stricture, that it cannot be pushed along with any justifiable amount of force. I have once cut the whalebone short off at the stricture, leaving half in the deeper part of the urethra, where it remained for two or three days, until its presence widened the stricture sufficiently to allow the stream to wash it out. No harm ensued, and the urethra

was dilated without difficulty, but the accident was at the least not pleasant to the operator. On another occasion I split up the whalebone into long shreds by trying to force the catheter along it. To avoid this, when there is difficulty in passing the staff along the guide I content myself with tying in the guide for one or two days, till its presence has smoothed or widened the narrow part, and the staff will slide through easily. I found by inquiry of my friend, Dr. Bumstead, when he was in England last summer, that the New York surgeons also thus evade the difficulty. But one must confess that this necessity very materially lessens the brilliancy and rapidity of the mode of treatment.

Wimpole-street, W.

ON THE TREATMENT OF PHTHISIS BY THE PHOSPHATE OF LIME AND THE JUICE OF RAW MEAT.

BY HENRY BLANC, M.D., M.R.C.S.

THE juice of raw meat and the phosphate of lime, combined, have given me very good results in severe cases of phthisis. Both these remedies have been prescribed in phthisis, but at present they are not much in favour. This result is due to their defective mode of administration, as none are more valuable in chronic diseases of the lungs when they are administered in a form suitable to the patient and to the disease.

The assimilation of the phosphate of lime is still an open question. Real progress has been made of late, but, nevertheless, we are far from having attained perfection; and whilst for the present we will do well to avail ourselves of the preparations placed in our hands, yet we must not rest satisfied with them, and trust to time and science to solve this very important question.

In France three preparations of phosphate of lime claim our attention. These are—the lacto-phosphate, the chlorhydro-phosphate, and the monocalcic-phosphate.

Not only science, but, unfortunately, commercial enterprise also has a great interest in this question; and, in consequence, a pamphlet war has broken out between the promoters of some of the soluble phosphates of lime. Dr. Dusart, who patronises the lacto-phosphate, and Mr. Coirre, who prepares the chlorhydro-phosphate, have based their solutions on the supposed nature of the gastric acid; the one, Dr. Dusart, believes that it is the lactic acid, and he recommends the lacto-phosphate of lime; and Mr. Coirre, convinced that it is the muriatic acid, combines this acid with the phosphate of lime.

A third competitor for the favours of the profession, Mr. Barbarin, suggests that it is probable, nay, possible, that both these gentlemen may be right, and he adds, "Why all this discussion? Having to do with a soluble phosphate, of what importance is the gastric juice?" Mr. Barbarin quotes from a recent communication made by Mr. Joulié, the pharmacien de la Maison de Santé, from which it appears that whatever the acid added to the tricalcic-phosphate, the result is one equivalent of monocalcic-phosphate, and two equivalents of another salt of lime; and if the acid employed be the lactic or the muriatic, it forms, with the base, a soluble combination, and we obtain a solution containing a mixture of both salts, and nothing more.

According to Mr. Barbarin, the lacto-phosphate does not exist any more than the chlorhydro-phosphate, and, to use his own expression, "these are two pompous words which only serve to denominate the mixture of one equivalent of monocalcic-phosphate and two equivalents of lactate of lime in the first instance; of one equivalent of monocalcic-phosphate and two equivalents of chloride of calcium in the second."

Evidently, if this chemical analysis of these salts be correct, then both the chlorhydro-phosphate and the lacto-phosphate will retain, the one under the form of chloride of calcium, the other under that of lactate of lime, two equivalents of the base more than the quantity necessary to the formation of the monocalcic-phosphate. Such is Mr. Barbarin's conclusion; *ergo*, he recommends the solution of monocalcic-phosphate which he himself prepares.

As long as the question is debated by those only who sell what they laud, the practitioner will be placed under great difficulties, not knowing what to believe or trust. I have prescribed the several preparations above-mentioned, and I have been able to make the following remarks:—The syrup of lacto-phosphate of lime (Dr. Dusart's) is well tolerated at first, but after a while it induces dyspepsia, nausea, and somnolence. Mr. Coirre's solution of chlorhydro-phosphate is not grateful to the patients, but it is well tolerated by those who are able to overcome their dislike to the rough, acid taste of the drug, and it has given me very good results. Another muriatic preparation, the wine and syrup of Chennevière, specially the wine of chlorhydro-phosphate of lime, is a very useful remedy, being both pleasing and well tolerated by the patient. I have only lately tried the monocalcic-phosphate syrup of Mr. Barbarin, not sufficiently to record an opinion as to its value or otherwise.

When the patients have not been able to persist in the use of the above-mentioned preparations of phosphate of lime, I have prescribed instead a drachm to a drachm and a half daily of the syrup of triple phosphates—Easton's formula,—giving at the same time a couple of grains of phosphate of lime at the principal meals.

The cases that are progressing most favourably are those who take the muriatic solutions — Coirre's solution or Chennevière's wine—and at the same time a drachm daily of the syrup of triple phosphates. Under whatever form the phosphate of lime may be prescribed, it should *always* be taken at meals.

The treatment of phthisis by raw meat and alcohol was prominently brought to notice some years ago by Professor Fuster of Montpellier. At first the results published were so favourable that it appeared that consumption had at last been conquered; but, unfortunately, the advantages gained by this treatment were not lasting, not that the raw meat was at fault, but merely because the patient could not be induced after a certain time to swallow the raw meat, or the stomach to tolerate it. The fault rests entirely with the mode of administration, and the principles on which the treatment was based still remain good, and by improving the form under which this valuable remedy can be administered we obtain from it all the advantages possible without any of its inconveniences.

I administer the raw meat in the following manner:—A pound to a pound and a half of fresh beef, deprived of fat, bones, &c., is placed over a quick fire for a few minutes, in order to whiten and harden the external surface only; the piece of meat is then cut into two or three pieces corresponding to the size of the meat-press, and all the juice is extracted by the pressure of the powerful screw. The superficial coction is necessary to overcome the elasticity of the meat, which renders the extraction of the juice a very difficult matter unless more powerful machines be used than the simple one at present required. A pound and a half of good fresh meat gives a teacupful of juice. The juice should be prepared daily. This juice, having all the physical properties of raw meat, is easily digested, is well tolerated, and, served in the following manner, is always very grateful to the patient. The juice should be mixed with equal parts of tepid broth, made of bones and flavoured with salt and pepper, and to which tapioca, vermicelli, &c., can be added. Care, however, should be taken that the broth is never more than *tepid*, otherwise coagulation takes place, and the desired effect is not obtained.

The treatment of the consumptive patient by this method is the following:—Early morning: Warm milk (not boiled), with bread and butter, and, if the appetite be good, some fat bacon and eggs. At eleven or twelve o'clock, breakfast, before which a drachm of the syrup of triple phosphate should be taken; during the meal itself, a dose of the muriatic phosphate of lime, and half the daily allowance of the raw meat juice in some broth; the meal should consist, according to appetite and digestive powers, of fish or poultry, or white meats, fresh vegetables, and a few glasses of good alcoholic wine. Dinner at six o'clock on the same principles; broth, with the remainder of the raw meat juice, and, instead of the triple phosphate, a dessert-spoonful of cod-liver oil can be taken with advantage after the meal, if the liver be not enlarged and fatty, and the digestion good. The muriatic solution, or wine of phosphate of lime, should

also be taken during the dinner. At night, before retiring to rest, a cupful of warm fresh milk, diluted one-third with Vichy water.

No medicines whatsoever, beyond those mentioned, should be administered, unless some special indications or some urgent symptoms claim their use. Anodynes, narcotics, cough mixtures, lozenges, blisters, inhalations, &c., are practically of no good, and but too often, by lessening the appetite or by irritating the patient, they increase the debility and hasten the fatal end. All hygienic rules—out-of-door exercise, ablution of the skin, &c.—should at the same time be carefully attended to. Under the influence of this treatment the appetite rapidly returns, the cough becomes less troublesome, the expectoration lessens, the night-sweats and all unfavourable symptoms decline and disappear, the patient gains flesh and strength, and the confirmed and helpless invalid, with proper care and prudence, can enjoy life once more.

The last winter in Paris has not been very cold, but it has been marked by variable weather, dampness, and great thermometric variations—all circumstances more unfavourable than cold to persons affected with chronic affections of the lungs; nevertheless all the cases under treatment are doing remarkably well. In all the stethoscopic signs still exist, but in none have they increased, and in several they are less marked.

Rue de la Paix, Paris.

ON ERYSIPELAS IN HOSPITAL AND IN GENERAL PRACTICE.

By ROBERT W. TIBBITS, M.R.C.S.,

SURGEON TO THE BRISTOL ROYAL INFIRMARY, LECTURER ON SURGERY AT THE BRISTOL MEDICAL SCHOOL.

IT is my intention in this paper to draw a comparison between erysipelas in hospital and in general practice. I shall first enumerate the cases that have occurred in the practice of myself and my colleagues in the surgical wards of the Bristol Royal Infirmary during the months of January and February last, and then those which have come under the notice of the medical officers of the Bristol Dispensary.

The Bristol Royal Infirmary, erected in the beginning of the last century, was originally a long building with a slight projection at each end. It consisted principally of two storeys of wards, these being separated on each floor by central passages, and approached by stairs at the ends and in the centre of the building. The wards in some cases were ventilated by windows on both sides of them, but in the majority had windows on one side only, the opposite side communicating with the central passage. The out-patient department is a one-storeyed structure attached to the back of the main building. In the year 1858, a wing, consisting of a museum and chapel, was built on to one end of the infirmary, and in 1869 a corresponding wing, containing two wards, was erected at the other end, thus converting the building into nearly three sides of a square, the out-patient department being included in the centre; and as this department is principally ventilated by sky-lights, every opportunity is thus afforded for the foul air of the accumulated out-patients to be freely carried through the open windows into the wards.

I have no means of determining the exact number of cases of erysipelas which occurred in former times, but believe there is little doubt that this disease has of late years been more rife in our wards.

For the following notes I am indebted to Mr. Chute, our house-surgeon, and they include the whole number of cases of erysipelas treated during the first two months of the present year.

1. Thos. R——, aged twenty-four, was admitted Jan. 1st into No. 11 ward with extensive sloughing phagedæna of the penis. Under chloroform the remains of the prepuce were removed, and the whole surface of the sore mopped over with strong nitric acid. He gradually recovered, with the loss of a considerable portion of his penis.

2. James B——, aged forty-five, was admitted into No. 14 ward with ununited fracture of femur. The ends of the bone were roughened and then tied firmly together with twisted iron wire. He did well for some weeks, but on Jan. 6th erysipelas set in, and spread over the whole of the limb and a considerable portion of the body. Death ensued on Jan. 26th.

3. Worthington H——, aged sixty-two, was admitted into No. 11 ward, on Dec. 29th, with varicose ulcer of the left leg. About half an inch of the internal saphenous vein was excised, and he progressed favourably for a few days; but on Jan. 16th erysipelas occurred and spread over the whole of the leg.

4. William E——, aged twenty-four, an out-patient suffering from punctured wound of the ball of the thumb. On Jan. 16th he was admitted suffering from rigors and severe constitutional disturbance; this was followed by a sharp attack of erysipelas of the injured limb.

5. Charlotte D——, aged nine, admitted into No. 16 ward with diseased hip-joint. The joint was excised on Jan. 12th, and on the 23rd erysipelas commenced and extended over the whole of the limb.

6. Shadrach S——, aged thirty, admitted into No. 12 ward with ununited fracture of tibia and fibula. On Jan. 23rd the ends of the bone were roughened, and brought into apposition with a strong iron-wire suture. Three days after the operation a sharp attack of erysipelas, accompanied by severe constitutional symptoms, set in.

7. Lawrence A——, aged thirty-six, admitted into No. 9 ward with injury to the left eye from strong sulphuric acid having splashed into it; also a slight abrasion over the nose. On Jan. 31st erysipelas began, and led on to suppuration under the scalp and destruction of the injured eye. This patient, when thoroughly convalescent, suffered from a second attack.

8. John S——, aged sixty, admitted into No. 11 ward on Jan. 29th with strangulated femoral hernia. The stricture was divided and the gut reduced without the sac being opened. Two days after the operation erysipelas commenced, and extended for some distance over the walls of the abdomen.

9. Wm. M——, aged thirty-six, an out-patient, was admitted with erysipelas of the forearm and arm, starting from a small sore over the left elbow.

10. Alfred W——, aged thirty-eight, admitted on Feb. 3rd with erythema of the left upper arm, in the neighbourhood of a small abrasion. This passed rapidly into erysipelas and suppuration of the cellular tissue.

11. Hester W——, aged thirty-seven (wife of Alfred W——), admitted Feb. 4th with idiopathic erysipelas of the face, head, and neck, passing on to suppuration of cellular tissue of the neck.

12. Joseph F——, aged thirty, admitted into No. 10 ward with contracted knee, the result of injury. On Feb. 7th a blister was applied over the knee. This was immediately followed by a severe attack of erysipelas of the leg and thigh.

13. Maria D——, aged seventy-two, an out-patient, was admitted into No. 9 ward with suppuration of a bursa over the elbow. Diffuse inflammation of the hand, forearm, and arm supervened.

14. Mary Ann G——, aged twenty-three, the night-nurse of No. 15 ward, was seized on Feb. 7th with inflammation of the forearm and lymphatics of the arm, followed by abscess in the axilla, and accompanied by severe constitutional symptoms.

15. Mary Ann S——, aged sixty, an out-patient, was admitted on Feb. 14th, with severe erysipelas of both arms, following on a compound fracture of the left little finger.

16. William B——, aged sixty-two, was admitted into No. 11 ward with a cancerous gland under the jaw. This was excised on Feb. 21st. Two days after the operation erysipelas set in and spread over the face and scalp.

17. Eliza B——, aged six, admitted on Feb. 26th, with erysipelas of leg, starting from an inflamed corn.

18. James W——, aged three, admitted into No. 15 ward with lacerated wound of scalp. On Feb. 27th erysipelas began, and extended over face and scalp.

19. Hannah N——, aged sixty, admitted into No. 16 ward with contracted finger. On Feb. 26th the finger was amputated, and on the 28th erysipelas supervened.

The above cases form by no means a pleasant record of two months' hospital practice, and certainly might fairly, at the first glance, be set down to the effects of hospitalism;

but during that time cases of erysipelas occurred in my own practice outside the infirmary, and also, I believe, in the practice of many of my friends. Moreover, on previous occasions when erysipelas has visited the wards of our infirmary I have had reason to believe that patients treated in private have not been totally exempt from its attacks. To obtain further information on this subject I applied for assistance to the medical staff of the Bristol Dispensary. I chose this institution because it is entirely distinct from the infirmary. It includes the whole district of Bristol. The patients are of the same class as those received into our wards, but they are attended at their own homes by a staff of medical men who have no connexion with the infirmary. To these gentlemen—Messrs. Fendick, Gloage, Rudge, and Hetling—I am greatly indebted for having supplied me with the following brief notes of cases of erysipelas treated by them during the months of January and February.

1. John K——, aged forty-six, Irvin Cottage, St. Paul's. On Jan. 6th attacked with erysipelas following wound of scalp; severe constitutional symptoms; formation of abscesses in face and scalp.

2. Eliza J——, aged forty-seven, Great George-street, St. Jude's. Attacked on Jan. 11th with idiopathic erysipelas of face and scalp.

3. Mrs. M——, aged forty-five, Providence-court, St. James's. Attacked on Jan. 10th with erysipelas of face and scalp, following contused wound of head.

4. Ann E——, aged sixty-six, Viacoff-parade, St. Paul's. Jan. 14th: Idiopathic erysipelas of face and scalp.

5. Blanche B——, aged one year, Goodhind-st., Stapleton-road. Jan. 19th: Erysipelas of vulva, spreading down to left foot.

6. John V——, aged sixty-eight, Great George-street, St. Jude's. Jan. 20th: Idiopathic erysipelas of right leg and foot.

7. Ann D——, aged seventy, Prospect-place, Baptist-mills. Jan. 21st: Erysipelas of left foot and leg, following a contused wound of skin.

8. Abraham C——, aged thirty-one, Pennywell-road. Jan. 26th: Erysipelas of knee and thigh, following a blow.

9. Eliza N——, aged fifty-four, Union-street, St. Paul's. Jan. 26th: Idiopathic erysipelas of face.

10. Mary T——, aged forty-five, Castle-green. Jan. 26th: Erysipelas of face, following the free use of strong eye-drops.

11. Eliza S——, aged sixty-four, Twinnell-road. Feb. 2nd: Erysipelas of right leg and foot, starting from an old ulcer, and leading to abscesses in the cellular tissue.

12. Mary B——, aged sixty-seven, Thistle-street, Easton-road. Feb. 3rd: Erysipelas of face and scalp, following a fall with contusion of these parts.

13. Richard P——, aged forty, Woodwell-crescent, Hotwell-road. Feb. 4th or 5th: Erysipelas of face and scalp, following scalp wound, terminating in death.

14. Mary P——, wife of the last patient: Severe erysipelas of face and scalp.

15. Thomas E——, aged three months, Mills-place, St. Paul's. Feb. 8th: Cutaneous erysipelas, following vaccination.

16. Frederick S——, aged sixteen, Rosemary-street, St. Paul's. Feb. 9th: Erysipelas of face and scalp.

17. John B——, aged seventy, Culvert-st., St. Augustin's. Feb. 6th: Erysipelas of leg and foot, starting from an old ulcer.

18. F. P——, aged forty, Wellington-street, Easton-road. Feb. 18th: Erysipelas of face, following wound of forehead.

19. Mrs. Y——, aged thirty-three, St. Michael's-hill. Feb. 23rd: Severe idiopathic erysipelas of face and scalp.

20. Mary L——, aged thirty-four, Thrissel-street. Feb. 26th: Erysipelas of face.

21. F. J——, aged forty, Morton-street, St. Silas. Feb. 26th: Idiopathic erysipelas of face and scalp.

The number of surgical cases that come under the notice of the medical officers to the dispensary form a very small proportion of the total number of patients attended to. The open wounds under treatment in the 140 surgical beds of the infirmary must be far more numerous. Hospitalism can have had nothing to do with the existence of erysipelas amongst the dispensary patients; and, scattered as the cases were over a very large district, contagion seems equally out of the question. If this is so, what must we say concerning the existence of the disease in the infirmary? There, also, the cases were scattered promiscuously through the wards, no one ward being specially attacked. Every possible precaution was taken. The walls were whitewashed with chloride of lime; the floors washed regularly with a solution of carbolic acid; the bedding was disinfected; and overcrowding of wounds strictly avoided. Yet from time to time fresh cases broke out. Had I contented myself with writing only the first part of this paper, would anyone have doubted that the so-called "hospitalism" was all-sufficient to account for the mischief? Can it be said so now? I think not. The prevalence of erysipelas outside the infirmary proves that some other influence was at work. Far be it from me to argue against the contagiousness of erysipelas, or to underrate the precautions that ought to be taken to prevent its spread. I believe that too great care can never be exercised; but, despite every precaution, I believe there are times when this disease will attack cases both in hospital and general practice, and the facts I have related in this paper help to show the correctness of this assertion.

I have not referred to the question of pyæmia; and, although this disease is certainly not unknown in private practice in Bristol, it seems to me to be impossible to draw any comparison as to its relative frequency inside and outside the walls of a hospital. In this neighbourhood, at any rate, a very large proportion of the cases operated upon in private practice belong to the upper or middle classes of society; and it would be unfair to compare the results obtained amongst these with the results amongst the unhealthy and poorly-fed people that form a large majority of the cases submitted to operation in our infirmary.

Bristol.

A Mirror of HOSPITAL PRACTICE, BRITISH AND FOREIGN.

Nulla autem est alia pro certo noscendi via, nisi quamplurimas et morborum et dissectionum historias, tum aliorum, tum proprias collectas habere, et inter se comparare.—MORGAGNI *De Sed. et Caus. Morb.*, lib. iv. Proœmium.

ST. THOMAS'S HOSPITAL.

CASES OF TUBERCULAR MENINGITIS.

THE following is a continuation from page 585 of the series of cases of tubercular meningitis treated at the above hospital during the past year. For the following notes we are indebted to Dr. Greenfield, medical registrar.

CASE 5.—E. J. W——, aged eight, admitted on Oct. 7th, 1873, under the care of Dr. Bristowe. It was stated by the mother that the patient had been "poorly" for about a month, complaining of languor, pain over the eyes, and loss of appetite; but no definite symptoms were observed until Sept. 27th, ten days before admission, when he was seized with vomiting just after dinner, and was obliged to take to his bed, which he has kept ever since. Two days later it was observed that he could not speak plainly, though he was quite sensible till two days before admission, when his look became vacant, he scarcely spoke, and then only half intelligibly, and took no notice of anything. The vomiting continued for four days, and then ceased entirely, and the bowels were confined.

On admission, he lay quite unconscious, occasionally moaning and throwing his arms about. No localised paralysis. Pupils somewhat dilated, inactive to light, especially the left; eyeballs in frequent irregular movement. Tongue thickly coated and slightly aphthous. Face pale, but flushing irregularly. Well-marked tâche cérébrale on abdomen. Temperature 100·5° to 101°; pulse rapid, nearly regular, about 140. Occasional bronchitic râles in front of chest, but no other abnormal signs. Motions passed unconsciously.

Oct. 9th.—General condition unchanged, but there is a tendency to external strabismus of both eyes. Swallows

fairly well, occasionally with some difficulty. Temperature 99·4° to 100·6°; pulse varying from 104 to 120 per minute.

10th.—Constant uneasy movements of the left hand and arm since yesterday, the right being only occasionally moved. Face flushed, and the left side appears weaker than the right, and the lines smoothed. No paralysis of palate. Temperature 99·2° at 2 P.M.; pulse very irregular and unequal, varying from 60 to 140 per minute.

11th.—Lies in much the same condition, quite unconscious, but grinds the teeth; left pupil much dilated, insensible to light; temperature 98·4°; pulse 84 at 10 A.M., 150 at noon; the ophthalmoscope shows marked double optic neuritis.

13th.—Temperature continues at about 98·2°; pulse 168, small and jerking; respiration irregular and stertorous. Some swelling of the head has been observed for the last three days, and there is now considerable œdema of the scalp and right side of neck. Is more quiet, but otherwise about the same.

14th.—Evidently weaker, and almost moribund. The temperature has varied greatly since yesterday, rising from 97·3° to 100·7° in two or three hours, and falling again in an hour or two. Left pupil dilated, insensible; right of normal size, and acts fairly well to light. Occasional convulsive twitchings of eyes to left. Died at 7 P.M., without fresh symptoms.

Autopsy, nineteen hours after death.—Body well nourished; considerable œdema of scalp.—Lungs: No pleural adhesions; but numerous grey granulations on the visceral layer of both pleuræ; both lungs somewhat congested towards posterior part, and emphysematous towards the front; no sign of inflammation; grey granulations thinly scattered throughout both lungs, perhaps rather more abundantly in the upper lobes; a few of these were slightly opaque, but none caseous. Bronchial glands somewhat enlarged, pale, but none of scrofulous character.—Patches of grey granulations on the diaphragmatic surface of the pericardium; none elsewhere. Heart healthy.—Peritoneum: No tubercle visible except on the surfaces of viscera.—The liver had very numerous granulations, especially upon the surface, many yellowish. The spleen was thickly studded with granulations, many of which were yellow and of large size. The kidneys also had a few granulations near surfaces.—Brain, &c.: Dura mater very tense; distension of ventricles and flattening of convolutions very marked. At the base of the brain was a mass of inflammatory and tubercular exudation, extending from the interpeduncular space along the Sylvian fissures, but much more so on the left than the right side, reaching and extending over the vertex on the left side. In other respects the appearances were those usually seen. The sheaths of the optic nerves were greatly distended with fluid for a distance of about half an inch from the globe of the eye, so as to form a bulbous dilatation or ampulla, the diameter of which was double that of the undistended part. No tubercle was visible in the choroid.

WEST LONDON HOSPITAL.

STONE IN THE BLADDER; LITHOTRITY; GOOD RESULT.

(Under the care of Mr. TEEVAN.)

GEORGE W——, a bookbinder, aged nineteen, was admitted on April 18th, 1874, suffering from stone in the bladder. A fortnight previously he had sought Mr. Teevan's advice, when he was sounded, and a small calculus detected. The patient stated that he began to suffer pain at the end of the penis when he was only eight years old, and went under the care of Mr. Worle, who removed a small stone from his urethra. He remained perfectly well and free from any pain after the operation, till about three months ago, when he commenced to experience what he named a "soreness" at the end of the penis when urinating, and a few weeks later observed that he passed blood and matter when micturating. All his symptoms were aggravated by locomotion, and he was unable to ride in an omnibus without much suffering, but when at rest he could hold his water for four hours. He has passed gravel off and on as long as he can remember, but neither he nor his family have suffered from gout or rheumatism. The lad's father died in St. Bartholomew's Hospital two years ago, three weeks after the operation of lithotomy. The patient and his parents were all born in London.

At the time of admission the young man was pale and thin, and of nervous temperament. He could not walk many yards without experiencing much pain and being troubled with an urgent desire to micturate. Every time he made water he passed blood and mucus, and had much pain at the end of the penis.

On April 21st, at 3 P.M., Mr. Teevan performed lithotrity with a slender scoop, as the urethra was excessively tender, and the stone only three-eighths of an inch in diameter. No anæsthetic was administered, and not a drop of blood escaped during the operation.

22nd.—Some débris of lithic acid have come away to-day, and the patient's urine is thick and tinged with blood.

23rd.—3 P.M.: The patient had a rigor at 7 A.M. to-day, and another one at midday, attended with vomiting, and is now very pale and sweating profusely. The temperature taken by Mr. Webber, the house-surgeon, was found to be 100·6°. Mr. Teevan, on examination, ascertained that there was a large fragment of stone impacted in the penile urethra, about a couple of inches from the meatus externus. As the orifice was manifestly too small to permit of the egress of the piece of calculus, Mr. Webber applied the ether spray, and Mr. Teevan enlarged the meatus with a probe-pointed bistoury. The fragment was extracted with a urethral forceps, but not without some difficulty and bleeding.

24th.—9.30 A.M.: The patient has been perfectly comfortable since yesterday's operation. Pulse 84; tongue moist, but furred. Much mucus but no blood in the urine. Can hold his water for four hours.

28th.—A bougie was passed into the bladder to-day, and the entire tract found excessively tender and irritable.

May 2nd.—A delicate lithotrite was introduced to-day, but the parts were not in a state to permit of any manipulation. The patient is much better, and has been up and about for the past three days.

4th.—The young man says he feels nearly all right again, and goes out for a walk every day. No blood or mucus in urine.

13th.—The patient states that he feels quite well, and has lost all pain at the end of the penis. He can run up and down the entire length of the stairs of the institution without experiencing any annoyance. He was again sounded, but no stone could be detected.

19th.—Patient left the hospital yesterday, quite well in all respects.

Mr. Teevan observed that there were several points of interest in the case. The tendency to the formation of stone was apparently hereditary; for the father suffered from it, and the son had had a calculus removed from his urethra when only eight years old. The urethra was of small calibre, and hence a fragment of stone readily became impacted as it was travelling into a narrower part of the canal—a circumstance which was happily comparatively rare, and which had only occurred four times in his experience. Great constitutional disturbance was set up by the accident, which immediately subsided as soon as the cause was removed, thus demonstrating the well-known fact of the greater sensitiveness possessed by the urethra as compared with the bladder. The narrowness of the canal, conjoined with its irritability, were contra-indications of lithotrity, but they were overruled by the size of the stone and the age of the patient. Notwithstanding the drawback to the case produced by the impaction alluded to, the patient was out and about seven days after the operation—an event which could not have occurred had lithotomy been performed. The most delicate instrument was employed on account of the narrowness and irritability of the urethra, and to Sir Wm. Fergusson was due the credit of extending lithotrity to a case like the present, and rendering it less annoying to the patient, for he had greatly reduced the bulk of the shaft of the lithotrite, and so enabled it to be employed in a small and sensitive urethra where manipulation with a thick instrument was inadmissible. For lithotrity to be called successful, it was not only necessary to remove the stone, but it was also desirable to avoid perpetuating that state of irritability which it was the object of the operation to terminate, and these ends would be best attained by the employment of delicate instruments, and leaving the after-treatment of the case as much as possible to nature.

THE HOSPITAL FOR WOMEN, SOHO SQUARE.

CASES OF OVARIOTOMY.

THE following is a continuation, from page 800, of the cases of ovariotomy treated at the above hospital during the past year:—

CASE 12. *Ovarian tumour; operation; recovery.*—Marie R—— was admitted under Mr. Heath on August 14th, 1873. She was fifty-two years of age; had been married twenty-seven years; had two children, the last twenty-four years ago. Her periods ceased five months ago. She felt herself getting larger fifteen months ago. The swelling began first on the left side, and gradually got larger. No pain preceded it, and the patient has not had any pain in the abdomen. Says she has always felt a sensation of tension round her waist, nothing else. At Bordeaux she was seen by a medical man, who advised her to come to England to have the operation performed.

On admission the breathing was much embarrassed, and the patient was in great distress from the size of the abdomen, which was so tense as to render a diagnosis impossible; therefore, the day after—on Aug. 15th—Mr. Heath tapped her, and 170 oz. of thick brown ovarian fluid was drawn off.

On the 16th of August Mr. Heath performed ovariotomy. The patient was put under chloroform, the abdominal incision made, and the tumour exposed. A trocar was passed into the opening that had been made at the tapping on the previous day; a large quantity of fluid escaped, but there being other cysts, the trocar was withdrawn, and they were ruptured into the mother cyst, and the fluid so allowed to escape. The tumour was then withdrawn from the abdomen, the adhesions being broken down, and any bleeding that occurred stopped at once. The pedicle was divided by means of the clamp and cautery, and, there being no bleeding on taking away the clamp, it was dropped into the abdomen and the wound brought together with silk sutures, dressed with dry lint and plaster, and above this cotton-wool and a bandage. The cyst alone weighed 6½ lb., and 120 ounces of fluid escaped on the day of the operation, in addition to the 170 ounces drawn off by tapping the day before. The patient had not a bad symptom after the operation, excepting pain and trouble on passing water. The temperature never rose to 102° F., the highest being 101·8° F., and that only once. Her only troubles during convalescence were occasional distension of the abdomen and the pain on micturition, which at times was very bad.

On Aug. 28th, the twelfth day after the operation, she had a mutton chop for her dinner, and on Sept. 6th was discharged quite well, with the exception of there being a little pain on passing water still remaining.

DORSET COUNTY HOSPITAL.

INTERNAL LATERAL DISLOCATION OF LEFT KNEE-JOINT; FRACTURE OF SHAFT AND EXTERNAL CONDYLE OF RIGHT HUMERUS, EXTENDING INTO THE ELBOW-JOINT.

(Under the care of Mr. TUDOR.)

FOR the notes of the following rare and interesting case we are indebted to Dr. Alfred Holles, house-surgeon.

T. S——, aged nineteen, a strong, able seaman, admitted Jan. 20th, 1873, having on the previous day been violently dashed by a heavy sea against the scuttle hatch of a steamer whilst coming down the Channel in one of the heavy gales which prevailed last winter. There was considerable deformity, caused by an internal lateral displacement of the condyle of the left femur to the extent of an inch and a half, accompanied by extensive effusion into and around the knee-joint, the parts being tense, hot, and painful. The patient was at once placed under the influence of chloroform, the position of the joint being then greatly improved by extension and manipulation. Great caution was observed, and violent measures were carefully avoided because the inner condyle so nearly protruded through the skin, which itself confined extravasated blood, and was much bruised. The limb was then secured to a M'Intyre's splint, together with a flat outside splint, carefully padded and adjusted the whole length from the trochanters to the external malleolus; whilst the right arm was placed on an inside jointed, perforated, zinc splint, with small side splints for the upper arm, the limb being flexed at a right angle, and supported in a sling secured round the neck in the usual way.

Feb. 13th.—A vast amount of swelling and inflammation resulted in the knee-joint, which was left exposed, and evaporating lotions relieved pain and subdued inflammation; but to-day circumscribed fluctuation was felt over the inner condyle of the femur, and a small incision gave vent to a good quantity of decomposing blood and some thick pus. A piece of drainage-tube was inserted, and the cavity, which apparently did not communicate with the joint itself, was daily syringed with a weak solution of carbolic acid (1 to 50), under which treatment the wound gradually closed.

March 8th.—M'Intyre's splint was taken off and replaced by a small Busk's splint, the joints of which would allow of passive motion being practised daily.

28th.—To-day an outside splint, extending up the thigh three-fourths of its length, and to a similar distance down the leg, with one joint at the bend of the knee, was adjusted in the room of Busk's splint, and the patient was allowed to get up and move about on crutches, which in a few days he cast off entirely.

April 13th.—The last splint was taken off to-day, and, although there was seen to be a slight deformity about the joint, so that the inner border of the patella was on a line with the "ring" toe, yet he had nearly full power and free motion in the joint, so that in a week's time from this day he might have been seen dragging a heavy roller over the lawn with scarcely a limp.

With regard to the arm, all bandages and splints were removed on Feb. 15th, only twenty-seven days after the accident, at which time union was found to be perfect, and therefore motion in the elbow-joint was daily increased by passive flexions and extensions till it became no longer necessary. For some time, however, he suffered from wrist-drop, which was gradually remedied by the daily application of the interrupted current.

Finally, this patient was discharged on May 15th with all functions perfectly restored in both limbs, ready, willing, and able to go to sea again.

Mr. Tudor remarks on the comparative rarity of dislocations of the knee-joint. In his own practice he has had only one partial dislocation for the past twelve years, and it was of rare occurrence at the "Dreadnought" Seamen's Hospital.

WEST HAM, STRATFORD, AND SOUTH ESSEX DISPENSARY.

CASE OF DIABETES MELLITUS.

(Under the care of Mr. KENNEDY.)

FOR the following notes we are indebted to Mr. R. J. Carey, house-surgeon.

Mary G——, of Plasket, aged seventeen, who has never menstruated, came to the dispensary on Jan. 14th, 1874. Though previously healthy, for the last six weeks she had gradually become weak and inert. Her skin was harsh and dry, and her appetite voracious. There was great constipation, thirst, and polyuria. She is a nervous subject, but there was no history of a fright or change of diet. The urine (sent that day week) showed much sugar by Trommer's test. She was given fifteen drops of tincture of perchloride of iron three times a day, and skim-milk ordered.

For the next fortnight she steadily got worse, and then the treatment was changed to ten drops of tincture of opium, and a week later fifteen drops, three times a day, with croton-oil pills. By this time she was so weak that she could not come to the dispensary herself. On Feb. 18th a sixth of a grain of nitrate of uranium, in water, was given three times a day, and gradually raised to the third of a grain. A week later she was much better. The week following, the bowels were regular, and the appetite and the quantity of urine no longer excessive; while on March 4th, and for a fortnight after, she had gone back to her usual diet, and felt nothing wrong with herself save some muscular weakness.

From March 21st to April 8th she was not seen, but then she returned with a bad cold and out of sorts again. However, though she was weak and needed change of air, the

bowels were regular, the appetite defective, polyuria not noticeable, and the urine showed no sugar by Trommer's test or by the fermentation and specific gravity test.

The following table shows the condition of the urine from March 11th :—

March 11th	...	sp. gr. 1038	...	much sugar
„ 21st	...	„ 1021	...	sugar—a trace
April 8th	...	„ 1025	...	no sugar
„ 15th	...	„ 1024	...	no sugar
„ 25th	...	„ 1025	...	no sugar

Many may doubt if the nitrate of uranium had anything to do with the patient's recovery, but, as some cases of rapid cure and many of permanent palliation of this disease by the use of this drug have been recorded, it is to be hoped that practitioners of large experience will properly test its value in cases of diabetes mellitus.

Medical Societies.

PATHOLOGICAL SOCIETY OF LONDON.

TUESDAY, MAY 19TH, 1874.

DR. HARE, V.P., IN THE CHAIR.

DR. GOODHART showed a small Fibroma of the Ovary. These were extremely rare. It was connected with the tunica albuginea, the fibrous covering of the ovary.

Dr. GOODHART also showed a specimen of Cancer of the Uterine Mucous Membrane, secondary to cancer of the ovary. It was from a woman aged twenty-six, who died three weeks after ovariotomy had been performed. The disease was in the pedicle of the ovarian tumour, the Fallopian tubes, and the mucous membrane of the uterus; the muscular tissue beneath was beginning to be infiltrated. There were secondary growths in the lungs.

Dr. HILTON FAGGE exhibited several specimens of Fibroid Degeneration of the Heart, which had recently come under his notice. The first was from a man aged fifty-five, who was under Mr. Bryant's care for gangrene of the right lower limb. He had been a drinker. He gradually died, after six weeks' illness. The heart weighed thirteen ounces. Part of the apex was replaced by fibrous tissue; the other part was occupied by a dull greenish material mixed up among the muscular substance, which was slightly altered; the change had spread through the tissues and set up local pericarditis. In the second case the patient suffered from cardiac dropsy and had had rheumatic fever; and there was a systolic murmur at the apex. The heart weighed thirty-four ounces. The pericardium was adherent; the right side of the heart was healthy, the left side dilated but not uniformly thickened; the septum was hard, and the cavity much enlarged; the mitral valve was competent; the posterior wall was made up of white tendinous tissue, and fibrous bands passed between the muscular bundles; there was endocarditis over the fibroid parts. The third case was a woman aged thirty, who had suppuration of the glands of the neck extending down to the mediastinum. The heart weighed twenty-five ounces; the lungs were adherent; the pericardium was adherent; the left side of the heart was dilated; the greater part of the heart was made up of fibrous tissue; in front the muscular substance was healthy, but towards the base there were thick broad fibrous layers beneath the pericardium; there were a number of pouches filled with a firm fibrinous coagulum in the substance of the ventricle. The fourth case was a man whose heart weighed sixteen ounces. The valves were healthy; at the apex there was a small mass of fibroid change; bands of fibrous tissue passed between the muscular tissue; there were two small patches in the septum. The fifth case was a man aged sixty-six, who suffered from hæmaturia. In the left ventricle there were a number of small patches of fibroid disease. The sixth case was that of a gentleman aged eighty-five, who was brought into the hospital in a dying state. There was fibroid disease at the apex of the heart. The seventh case was a man aged sixty-nine, who was quite well five weeks ago; then dropsy and hæmoptysis set in. The heart was enlarged, weighing twenty-two ounces, the right side dilated, the left hypertrophied; the fibroid change was in bands and in layers of gristly hardness. In all these cases the change was greater at the apex and the posterior wall. It had been said that the anterior wall of the septum was most affected. He thought the pericarditis was secondary to the change in the heart's substance. In two cases the pericarditis was most over the diseased part. It was a question whether the change was not primary in the muscle rather than in the pericardium. He thought it would be better to call the change fibrous, as it occurred in wavy bands, and not like that in syphilis. In many cases there was disease of the walls of the arteries; in one senile gangrene. He had not been able to find the definite layer of small-celled growth which Dr. Green had described. In one case it looked as though the muscular fibres themselves became fibrous.

Dr. GAIRDNER said he had a specimen different from any of the series shown; the change had commenced in the columnæ carneæ, and then spread outwards. He thought there were two forms of the degeneration—the first a general degeneration of the tissues, the second a fibroid degeneration of the muscular tissue of the heart; the last was difficult to verify.

Dr. MOXON said fibroid change was often dependent upon syphilis; no history of syphilis was mentioned in the series, but one case had something in the neck, disease of glands running down to the mediastinum. Unless this was shown to be something definite it would lead to the probability of chronic constitutional disease.

Dr. GREEN had seen two or three cases; in two of adherent pericardium a fibroid change extending into the muscular tissue, a small-celled growth. Many cases of fibroid heart were the result of old pericarditis, and the danger in these cases resulted from deficient contractile power of the heart. In one case the endocardium, not the pericardium, was affected. He thought the majority of cases were secondary to pericarditis or endocarditis.

Dr. HILTON FAGGE said that in one case the glands of the neck were enlarged and suppurating; at the post-mortem examination the glands were cheesy and yellow; the glands at the root of the lung were calcified.

Dr. HILTON FAGGE then showed a Fatty Tumour of the Neck from a case of goitre and sporadic cretinism. The patient was in Earlswood Asylum, a lad aged twenty-three, about two feet high, with a fatty tumour of the neck. He died; the thyroid was present, and a goitre on the right side. The appearances in the skull corresponded with what Virchow had described. The substance of the tumour was like fat in colour, but differed from that found in other parts; the heart was small; genital organs undeveloped. He knew a family of twelve in which three of the children were stunted, and like this described; the other children were healthy; the father could not account for it; he was never drunk. That goitre should occur in sporadic cretinism here shows that the difference is not so great as has been supposed.

Dr. SQUIRE believed that the presence of sulphate of iron in the water, if not the cause, was associated with goitre. Some Swiss observers had thought the same.

Dr. H. FAGGE then showed a Bladder from a patient on whom lithotomy had been performed six years ago. The cicatrix was on the left side.

Mr. PUGIN THORNTON showed for Dr. MORELL MACKENZIE a Papillomatous Growth from a woman aged seventy-two. Thyrotomy was performed, and the growth removed from the left side of the larynx.

Mr. THORNTON then showed a Bronchocele from a dog: a fibro-cystic tumour of the thyroid gland. He thought this was rare in the dog.

Dr. CRISP had seen several cases in the dog. The late Mr. Lord noticed that above a certain altitude in South America all the dogs had an enlarged thyroid gland.

Dr. WHIPHAM gave an account of a dog with a similar tumour, which was blistered; the skin gave way, and the coffee-ground contents came away. The dog recovered.

Dr. POWELL showed the Lungs from a child aged seven months who had died of hæmoptysis. The case was of interest from the early age at which hæmoptysis had occurred. The child had had a cough for three months before death, and was spitting a ropy pigmented sputa. It died spitting dark blood. At the autopsy, the right lower lobe was con-

solidated; in both lungs the apices had tubercular pneumonia and miliary tubercles. There were two small cavities in the apex of the right lower lobe, the size of a filbert. An exposed vessel ran across one cavity; this had ruptured, and was the seat of the hæmorrhage. The hereditary predisposition was very strong. Five other children had died with chest symptoms. The father had marked signs of consumption, and the grandfather died at the age of thirty-three of consumption.

Dr. THEODORE WILLIAMS exhibited a specimen of Double Aneurism of the Descending Aorta, bursting into the left pleura. The patient, a man aged thirty-seven, had suffered for three years and a half from sharp pain in the left chest, principally referred to the angle of the scapula, paroxysmal in character, and unrelieved by remedies. The physical signs indicated dilatation of the aorta and hypertrophy of the left ventricle. A pulsating tumour appeared in the posterior wall of the left chest six weeks before death, grew rapidly, eroding the ribs, and seemed at the point of bursting, when another portion of the sac ruptured into the pleura. At the autopsy, two large sacculated aneurisms were found lying on either side of the spine, eroding it considerably, and opening by separate apertures into the descending aorta. Double aneurism of the aorta is somewhat rare.

Mr. CALLENDER showed a Femoral Artery tied with a carbolised catgut ligature, also several gut ligatures which had been subjected to wound secretions. In a woman, aged fifty-three, to whose superficial femoral artery a catgut ligature was applied after amputation of the thigh, it was found, on examination twenty days later, that the artery was patent, no trace of carbolised ligature, and the vessel closed only by a clot of fibrine. Mr. Callender then determined to make a number of experiments to ascertain how long a catgut ligature remained; and after the removal of a fatty tumour, a series of ligatures were placed in the wound, removed at intervals of a few hours, and examined; the ligature gradually thinned, and then gave way; he presumed it held from fifty to sixty hours. Another series of experiments were made, using Brunton's antomatic digestor, and a temperature of 99° Fahr. was kept up, and the ligatures placed in distilled water, and kept there for over one hundred hours. There was no change whatever. From this it appears that after applying a catgut ligature to an artery, a time comes when we can rely only upon the clot in the vessel, and from the first series of experiments this time is from fifty to sixty hours, and if the strain is greater most probably a shorter time. Then the change in the ligature is not due to the action of fluids alone, as distilled water, but to fluids with the secretion of the wound.

Mr. GAY said it was necessary to keep the ligature on the vessel, so as to keep up the constriction the ligature at first made.

Mr. MAUNDER asked if the two inner coats were cut when the ligature was applied. In a patient who died of pyæmia the ligature was gone; the inner coats were cut, but there was no clot.

Mr. CALLENDER said he had little experience of the catgut ligature; as was well known, he always used torsion; but he wished to satisfy his own mind on the point, and so made the experiments. It did not always happen that the inner coats were cut through.

Mr. BUTLIN showed for Dr. Legg the following specimens: Mitral Stenosis with Hypertrophy of the Ventricle, and Cancer of the Portal Vein.

Dr. GREENFIELD showed a Cylindrical Epithelioma of the Liver. A woman had been suffering from vomiting and pain in the abdomen for six months; was emaciated and cachectic; the liver was enlarged. At the autopsy the liver extended nine inches below the ensiform cartilage; over the right lobe there were a number of small nodules; on the left lobe a mass. The nodules resembled ordinary cancer. The bronchial and mediastinal glands were enlarged. Microscopically the growth was a cylindrical epithelioma. Dr. Whipham had brought forward a case in which there was a multiple ovarian cyst, and the new growth might have started in the ovary. In his case there was a simple ovarian cyst. The growth is said to originate in the bile-ducts. Such cases are rare.

Dr. WHIPHAM said there was no trace of malignant disease found in the ovarian cyst in his case.

Mr. THORNTON showed a specimen of Syphilitic Narrowing of the Trachea. A man aged thirty-one, with history of syphilis, had had attacks of dyspnœa, for which tracheotomy was performed at St. Bartholomew's Hospital, and a tube introduced; the dyspnœa continued, and he died. Thickening of the larynx was found, and ulceration as far as the bronchi. There was a constriction about the fourth or fifth ring, admitting a No. 8 bougie. This Mr. Thornton had ascertained during life, but hesitated to perform tracheotomy again, as it would have had to be done so low down.

Mr. GAY showed an Adenoma. This was the continuation of a case which had often been reported. There were two tumours, with a capsule around them; there was no cyst in this tumour, as in the one last shown; it was a spindle-celled sarcoma. The young woman was now thirty-three, and the first tumour was removed when she was nineteen.

Mr. NUNN showed some photographs illustrating Injuries to the Ulnar Nerve. In 1866 a boy injured the ulnar nerve below the pisiform bone. The drawing shows contraction of the internal fingers. In a second case the nerve was injured on the proximal side of the pisiform bone. There was the same atrophy of the internal fingers. In the third case there was syphilitic thickening of the ulnar above the condyle. There was atrophy of the muscles and deformity of the hand.

Dr. VANDYKE CARTER said the cases illustrated the leprous diseases of India, as we find this condition an early symptom.

Mr. NUNN said the patient in the third case had served in India, and had had a skin eruption of a tubercular character.

Mr. WILKINSON showed a Vascular Tumour from the neck of a child aged eight months. The swelling was of the size of half an orange; the head was forced backwards by it. The tumour was three inches and a half long and two inches and a half broad. There was no inconvenience beyond that to respiration.

OBSTETRICAL SOCIETY OF LONDON.

WEDNESDAY, JUNE 3RD, 1874.

DR. E. J. TILT, PRESIDENT, IN THE CHAIR.

THE following gentlemen were elected Fellows of the Society:—Herbert Cooper, L.R.C.P. Ed.; Charles Francis Lewis, L.R.C.P. Ed. (Henfield); Robert Alex. Lithgow, L.R.C.P. Ed. (Henfield); Alex. Paterson, M.D. (Balna); and W. B. Slayter, M.D. (Halifax, Nova Scotia.)

Dr. John Williams and Dr. Clement Godson's Report on the Acephalous Embryo exhibited by the latter gentleman at the last meeting was read. At the posterior border was a slight ridge similar to a margin of skin around a recent cicatrix, and there was a small, rough, hard tubercle, which projected beyond the surrounding surface, and on dissection this was found to be continuous with the vertebral column. From these appearances, the acephalous condition may be regarded as the result of amputation.

Dr. DALY, of Dalston, exhibited a specimen in which a Tumour, the size of an orange, occupied the fundus of the uterus. There was also a small ovarian cyst on the left side. The late Dr. Tyler Smith had removed a polypus from this patient nine years back. Twelve months since she suffered from profuse flooding. Ice, gallic acid, and rest relieved this. The uterus was fixed in the pelvis. Between the attacks of hæmorrhage there was profuse and continued fetid discharge. Vomiting had been almost persistent during the last four months of life, and nothing relieved it. There was extreme emaciation. Death resulted on June 2nd. The lower portion of the uterus was in a sloughy condition, and it was a question whether it was malignant or disintegrating fibroid.

Dr. PLAYFAIR thought it seemed to be a fibroid growth with malignant degeneration.

Dr. GODSON inquired as to the character of the discharge, the presence of pain, and the fixidity of the uterus, points which would throw light upon the diagnosis.

Dr. HAYES asked what was the condition of the other abdominal organs.

Dr. ROUTH suggested a microscopic examination of a section of the tumour.

Dr. DALY, in reply, stated that the uterus was fixed; the

discharge was watery and offensive; the pain not as severe as is usually met with in cancer. There was no cancerous infiltration. The bladder and rectum were not involved, though the latter was interfered with by the pressure of the tumour.

Dr. TILT requested Dr. Hayes and Dr. Potter to report further upon it.

Dr. TILT exhibited a specimen of Fœtus, where the placenta was attached to the head.

Dr. JOHN WILLIAMS exhibited a specimen of Calcified Fibroids of the Uterus, the growths being distinct and well marked.

Dr. EDIS referred to a similar case, though somewhat more advanced, that he had exhibited to the Society in February, 1869, where some of them had commenced to slough, the patient dying from exhaustion.

Mr. W. ROSS JORDAN, of Birmingham, exhibited an Intra-Uterine Stem, with an inflatable india-rubber ball pessary attached to keep the former in position, for the relief of flexures and displacements of the uterus. The principal advantages consist in there being no tube attached, thus removing a source of much annoyance to the patient. It cannot be removed by the patient herself, and thus its constant use is ensured. Whilst the stem keeps the uterus in its proper position and form, the elasticity of the ball or pad allows all the freedom of movement to the uterus which nature can require. The pad can be distended to any degree, and need not cause over-distension of the vagina. The pad, being perfectly soft, gives a comfortable support to the cervix, avoiding the pain sometimes caused by the hard and inflexible vulcanite pessaries. It cures the flexion without simply changing it into a version. The ball is inflated by inserting a movable metal tube into a valve, injecting the air, and slightly rotating the tube, which closes the valve, and is then removed, leaving the pad permanently distended to any required extent. It does not interfere with coitus.

Dr. EDIS thought it was a very ingenious arrangement, but doubted whether it would be prudent in married patients to allow coitus, as the intra-uterine stem, being pressed against the fundus, might cause injury to the uterus.

Dr. BARNES reported that in Dr. Kesteven's case, exhibited at the last meeting of the Society, there was no fluid in the post-cranial bag; there was nothing, in fact, to add to the description already given.

Dr. HEYWOOD SMITH's report on Dr. Hayes's specimen was to the effect that though a considerable portion of the malignant mass was contained between the folds of the broad ligament, yet the site of its origin, whether in that situation or from the pelvic walls, there was not sufficient evidence to prove.

Mr. ROBERT GRAY, of Armagh, related a case of

SEPARATION OF THE GREATER PART OF THE CERVIX UTERI DURING LABOUR.

The patient had been in labour twelve hours when he first saw her; the head was then about half-way through the pelvis, surrounded by about half an inch or more of the anterior portion of the cervix uteri, which was thick, soft, and congested. It had a pulpy feel, much like the feel of a solid clot of blood. Passing round to the posterior portion, it was separated from the body, having a ragged, uneven margin. There was a slight oozing of blood from the vagina. The separated portion was removed, the forceps applied, and a living child delivered. There had been incessant vomiting before delivery. Opium and ergot were administered. She complained of smarting inside the vagina. Injection of water with Condy's fluid was resorted to daily. The pulse sank to 80, the temperature remaining steadily at 96° F. The attached ring separated completely on the fourth day. Recovery ensued. The only cause assignable for the laceration was pressure on the cervix between the head and pelvis.

Dr. TILT read a very exhaustive paper

ON LYMPHANGITIS IN PUERPERAL PATHOLOGY,

his conclusions being condensed in the following propositions:—1. Pelvic cellulitis, benign or septic, originates in the lymph spaces, and in the capillary lymphatics that have been wounded in some lesion of the utero-vaginal mucous membrane. 2. Wherever situated in the pelvis, cellulitis follows the same course, but varies in name and in symptomatology according to its topographical disposition, and to the organs and the tissues that circumscribe it. 3. From the patch of capillary lymphangitis implicated in a mucous membrane, lesion (inflammation) may spread to one or more of the nearest lymphatics, and may be benign or septic. 4. One lymphatic may pass on inflammation to another, so that a continuous chain of purulent lymphatics may extend from the septogenetic lesion to the lumbar lymphatic glands, and such acutely inflamed lymphatics often inflame their surrounding cellular tissue, their glands, and proximate organs. 5. When lymphatic glands do not succeed in barring the progress of inflammation, they also inflame their surrounding cellular tissue, and may thus cause an internal bubo wherever there be a pelvic lymphatic gland. 6. Occasionally peri-uterine inflammation has no other origin than this frequent origin of abscesses of the broad ligament. 7. Purulent lymphatics on their way to the lumbar glands may inflame the subserous cellular tissue in the iliac region, and thus cause iliac abscess. 8. The subserous lymphatics and the peritoneum are so intimately united by physical contact and physiological action, that it is almost impossible for subserous lymphangitis not to cause peritonitis. 9. The sub-peritoneal lymphatics being continuous with and contiguous to those of the ovary and the oviduct, they may be inflamed by subserous lymphangitis, particularly when it is septic. 10. The contamination of the blood by lymphatic pus leads to the inflammation of those parts that are in physiological connexion with the lymphatic system, such as the serous and synovial membranes, and the spleen, whilst phlebitis more frequently causes metastatic abscesses, if it be not their sole cause. 11. Though often overlooked in post-mortem investigations, sporadic puerperal lymphangitis is not uncommon, but is more frequently met with in connexion with, and eclipsed by, phlebitis. 12. The worst cases of lymphangitis (puerperal) have their modified counterpart, and their presentment subdued, in non-puerperal pelvic pathology, and more frequently than is admitted lymphangitis is the cause of speedy death from uterine operations. 13. Whether women be poisoned by puerperal lymphangitis or puerperal phlebitis, the general symptoms are the same in nature and in intensity, and the local symptoms vary according to the amount and to the variety of its primary and of its secondary lesions. 14. The increase in size and in number of pelvic lymphatics during pregnancy, and their increased functional activity, strongly support the rule not to operate on pregnant women. 15. As the liability to puerperal lymphangitis is in direct proportion to the number and to the gravity of lesions inflicted on the utero-vaginal mucous membrane by tedious labours, it is advisable to shorten, by the use of the forceps, according to modern practice. 16. The bathing of a puerperal wound in an ichorous discharge is so dangerous that disinfecting vaginal injection should be made so soon as the lochial discharge becomes in the least offensive. 17. The innocuity of injecting a solution of tincture of iodine into the womb immediately after delivery, and of a solution of perchloride of iron very soon afterwards, warrants the injunction to inject into the womb some strong disinfecting substance whenever the lochial discharge is fetid. 18. The frightful mortality that has attended some epidemics of puerperal lymphangitis justifies the horror of large maternities entertained by the profession.

Dr. PALFREY did not altogether agree with the author as regards the frequency of this disorder. It was, without doubt, more common in maternity hospitals than generally believed, and yet, though he was attached to one, he had never seen a case, and in the London Hospital they had never lost one. No proper comparison could be made between the London and Paris hospitals, the ventilation and hygienic arrangements in the latter contrasting unfavourably with the former. He would ask whether the author advised injecting iodine into the uterus three or four hours after labour, and whether there was no fear of the fluid passing through the Fallopian tubes into the peritoneum. He had seen one case where it was fatal. In another, Dr. Head injected the perchloride of iron into the non-pregnant uterus; death occurred shortly after, and iron was detected (post mortem) in the peritoneal cavity. He thought it was not prudent at any time to inject fluids like tincture of iodine and the perchloride of iron into the uterus. The results were often most disastrous. He would ask whether

the author considered pelvic cellulitis and lymphangitis to be one and the same condition. He had never seen glandular enlargement in the pelvis in pelvic cellulitis, and it was not, as a rule, a fatal disorder. Remembering that what the author taught would go forth to the world, he desired to express his dissent to the views enunciated respecting the harmlessness of intra-uterine injections. If it was so difficult for fluid to travel along the Fallopian tubes, how was it that semen often traversed them, and we got extra-uterine pregnancy as the consequence? He considered it was very easy for fluid to pass. *Apropos* of a remark of the author, that everyone had backed some form of intra-uterine stem, he begged to say that he himself had never done so. He had incised the cervix in some 300 cases, and there was no operation so successful; it was one of the grandest operations we had for the relief of suffering and the cure of sterility.

Mr. WM. ROSS JORDAN considered the Fallopian tubes different in the non-pregnant uterus and in the pregnant one. Semen would pass in the one, but not in the other. He knew of a case where Condy's fluid injected into the uterus had found its way into the peritoneum and caused serious consequences.

Dr. SAVAGE looked upon every inflammation as lymphangitis. There was no part of the body in which cellular tissue was absent, and this was permeated by radicles. It was open to question whether matter was propagated beyond glands through the lymph tubes. In the case of a punctured wound of the extremity, the lymphatics were often inflamed up to the glands in the axilla or groin, as the case might be, but they did not contain pus. The lining membrane of the uterus contained the same kind of radicles as other cellular tissue. Slight operations were often followed by death. In division of the cervix he had seen death in three cases, occurring within nine days. Lymphangitis was very frequent. Though fluid injected into the uterus could gain access to the Fallopian tubes, yet in the case of the spermatozoa it was different—they did so by means of cilia. He had never used iron or iodine in puerperal cases, though he had in certain forms of fibroid. He thought there were some omissions in the paper, but still it was a valuable contribution on the subject, and he had learnt a great deal.

Dr. TILT, in reply, stated that he had not represented the belief in the frequency of lymphangitis to be generally admitted in France and Germany, but he maintained that if half a dozen earnest workers could find a considerable number of cases of puerperal lymphangitis in several of the Paris hospitals during the last four years, similar cases must certainly occur in the London hospitals, and he would beg hospital men to look to the lymphatics in cases of speedy deaths after operations in the pelvic organs. He had not denied the possibility of some fluid passing from the oviducts to the peritoneum, and he was glad to have elicited trustworthy evidence of two cases in which some of the perchloride of iron injected into the womb had been found in that part of the peritoneum that surrounds the fimbriæ; but he maintained that this was of exceedingly rare occurrence, and that if otherwise such cases would not be quite exceptional, and they would have frequently occurred in Paris, where during late years it has been the practice in some hospitals to wash out the womb with a strong solution of alcohol or carbolic acid whenever the lochia became fetid. He therefore believed that rather than let fetid secretions remain pent up in the womb after delivery, it was better for a patient to run the infinitesimal chance of the disinfectant passing into the peritoneum. He was fully aware of the value of surgery in uterine therapeutics, and believed the present tendency was to place too great a trust in surgical measures for the treatment of the diseases of women. In conclusion, he begged to thank the Society for their patient attention to, and reception of, his paper.

THE PUBLIC DISPENSARY, STANHOPE-STREET.—A dinner in aid of the funds of this dispensary took place this week at the Albion, Aldersgate-street; Mr. Richard Twining, the treasurer, in the chair. This institution was founded as far back as 1872, and receives a great part of its support from members of the various inns of court. The total number of patients who, from the period of its foundation, have been relieved, amount to little short of half a million. The secretary announced a list of subscriptions amounting to about £340.

Reviews and Notices of Books.

Grundlinien der Pathologie des Stoffwechsels. Von Dr. F. W. BENEKE, Geh. Med.-Path. ord. off. Prof. der Allgem. Pathol., &c. &c.

Foundations of the Pathology of Tissue-Metamorphosis. By Dr. F. W. BENEKE, Professor of General Pathology in the University of Marburg.

THIS book could only have been written by a man who is at once a chemist and a clinical physician. It may be termed an explanation of clinical or pathological phenomena by the most advanced data of physiological chemistry, and indicates pretty clearly what the medicine of the future will be. In the earlier chapters Professor Beneke attempts to lay down the general principles which govern the circulation of matter in the animal and vegetable worlds, and which retard or accelerate the molecular chemical changes which take place in the bodies of animals. These are highly suggestive and in many parts subtle and profound chapters, but the parts of the book which have most interested us are those which refer to the quantitative changes in the different elements of the animal body. The history of the alterations in the circulation of water, in the transformation of the nitrogenous constituents and their derivatives, of the carbonaceous aliments and tissues, and of the various inorganic salts, make up a large portion of the book, and the almost innumerable data collected of late years are arranged and presented with great skill. The work is, in fact, an attempt to penetrate and elucidate that molecular chemistry which must be known before pathology can have a truly scientific basis. In his last chapter (on the nourishment of the tissues and their derangements) the author defines his position; he refers to the microscopic theories of pathology, and while he does not doubt the value of a knowledge of form, he yet asserts with truth that by far the most important and most difficult part of nutritive alterations (apart from those produced simply anatomically or mechanically) lies in the domain of chemical inquiry. Chemical conditions, in fact, underlie the anatomical form, and no real physiological and pathological theory of nutrition is possible until these chemical conditions are known. How far does this book elucidate, then, these chemical foundations of pathology, and afford any reasonable clue to the mystery of special anatomical form? It would be rash to affirm that it gives any deep insight into this dark problem, for that is really at present impossible; but by the systematic grouping of the abnormal chemical changes in the body, it enables us to form a tolerably coherent view of chemical pathology, which is a great advance on what has hitherto been done. It will be a most useful book for teachers, and will supply materials for many discussions; but more than this, it will take a definite place in the history of our science as the first real attempt at a general chemical pathology. In this last chapter, Beneke gives a summary of the causes of nutritive alteration, which will suffice for a general idea of the book. The first and simplest series of such alterations arise from abnormal quantitative relations of the single blood constituents, produced either by an abnormal condition of the food, such as want or excess of albuminates, fats, phosphates, iron, &c., or by want of digestive preparation or absorption in some part of the alimentary tract or liver. An immense field of abnormal conditions belong to this group. The second series of nutritive alterations arises in the building places of the form-elements of the blood, such as the blood-cells; this is a dark matter, and not cleared up, the author thinks, by the attempt of Virchow to refer all chlorosis to defective calibre of the arteries. The third group includes those which arise

from imperfection in the blood distribution; there may be an original failure in the build of the arteries (a point to which the author has directed much attention in his work on the calibre of the arteries), or subsequent changes, either organic or connected with alterations in the innervation of the arteries, as shown by the experiments of Bernard and Brown-Séquard on sections of nerves. A fourth group of abnormal nutritive changes proceeds directly from disease of the nervous elements, and constitutes the "trophoneuroses," which are chiefly connected with perverted action of the sympathetic, but not exclusively so. The alteration in the nutrition of the hair and skin in neuralgia of the fifth nerve, the phenomena of zoster, and probably of Addison's disease, are common examples of this origin of disease, which future inquiries will probably much extend. Beneke proposes, however, to bring under this heading even acute nutritive derangements, such as febrile consumption and acute fatty degenerations, which, he thinks, are largely owing to nervous conditions. Indeed, he seems to question whether all fevers and inflammations must not be referred—in part, at any rate—to this category. He divides the trophoneuroses—or, as he prefers to call them, the "neurotrophonoses"—into two groups: those attended with retrograde atrophic nutritive changes, and those followed by progressive or hyperplastic growth, the highest grade of which is seen in inflammations. It is of course to be understood that these several groups of abnormalities of nutrition may form numerous combinations and influence each other.

It is impossible in a short notice like this to do any justice to a work of such labour and learning as that before us. We must be contented if we can direct our readers' attention to it; and we can assure them that, though they must not expect to see an exhaustive chemical pathology, for which the time has not yet come, they will find in Professor Beneke's able work a most complete discussion and *résumé* of the latest researches on the subject.

Memorials of the Life of James Syme, Professor of Clinical Surgery in the University of Edinburgh, &c. By ROBERT PATERSON, M.D., Vice-President of the Royal College of Physicians of Edinburgh, &c. Edinburgh: Edmonston and Douglas. 1874.

MEDICAL biography has few *chefs d'œuvre*—few specimens indeed above respectable mediocrity. This can hardly be the fault of the subjects, for the life of the surgeon, physician, or country practitioner abounds in incidents and traits of character of which the novelist frequently avails himself. How is it that the "doctor" as he appears in Scott, in Warren, in Lytton, in Lever, in Thackeray, in Trollope, in George Eliot, is always interesting, not only in himself, but in his moral surroundings? How is it that in the hands of his biographer he rarely appears as more than an able and industrious professional man, whose exertions in the science and practice of his calling have received their natural reward in realised fortune or social distinction? With materials much less attractive the divine or the pleader has produced admirable specimens of biography in the lives of their professional brethren — Twiss's Life of Eldon, Hanna's Life of Chalmers, and Cockburn's Life of Jeffrey, at once suggest themselves. But John Hunter still awaits a worthy biographer. Distinguished army and navy surgeons are still without any adequate record of their eventful lives. Sir Astley Cooper's rise and career have yet to be narrated—the Life by his nephew being below mediocrity; while neither Goodsir nor Simpson has received more than mediocre treatment from their respective biographers.

Syme has been equally unfortunate. Besides being an evidently unpractised writer, Dr. Paterson has by no means a quick or penetrating eye for seizing character or traits of individuality. From his hands, Syme emerges as a shrewd, hard-headed, somewhat narrow-minded, and worldly Scot; while his humour, his geniality, his combined sagacity and boldness which made him the Wellington of contemporary surgeons, appear in faint relief and in pale colouring. So much space, moreover, has Dr. Paterson devoted to the controversies which Syme either incurred or got dragged into—controversies turning as often as not on collegiate jealousy, on personal vanity, or even vindictiveness—that the reader, for most part of the book, finds himself in a sort of academic or professional Donnybrook, where blows are given by men who ought to have been mediators, and wounds are inflicted by those whose function it is to heal. A worse school of manners than Edinburgh seems to have been during the last thirty or forty years can scarcely be imagined—if we are to accept the biographies of Simpson and Syme as a fair reflex of the daily walk and conversation of her teachers of youth. The art of hinting at such a state of things, while sparing the reader the unlovely details, seems not to be possessed by either Dr. Duns or Dr. Paterson; and, accordingly, the Alma Mater of modern Athens appears in their pages less like the calm Pallas Athênê than like a shrill cantankerous shrew, short of temper and bitter of tongue, whose house has somehow contrived to stand, though lamentably divided against itself.

Syme's career is by no means that of the typical Scot of fiction or popular belief. Unlike Simpson or Reid, he was born a gentleman, and was never in want of money. Descended from an old Kinross-shire family, he enjoyed every advantage that good connexion and a well-ordered education could give. He was a fairly industrious boy at the High School of Edinburgh; he was punctual and intelligent as a student in the arts classes of the University; he enjoyed excellent opportunities for cultivating his favourite anatomical and surgical pursuits under Barclay and his assistants, Robert Liston, Nasmyth, Ballingall, and Dickson. There was no hurry, no haste to be self-sustaining in his academical career. He visited Paris; he acquired German in the country itself, where he was a vigilant observer of its surgical practice; he had the means as he had the inclination to make himself and to keep himself an accomplished chemist and botanist; he was able to start an infirmary of his own when there was no immediate opportunity of his teaching clinical surgery in the hospital; he had the choice of holding a surgical chair either in Edinburgh or London, wisely preferring the former after a brief experience of the latter. In all respects there was probably no professional man more favoured than Syme, whether at the outset of his career or in the *medio del cammin*. Indeed, it is all the more to his credit that, with the means to live as a country gentleman, he persevered in making the practice and teaching of surgery the business of his life. But his heart was eminently in his work; he lived for surgery and he lived for his pupils. In diagnosis he was as careful to anticipate every possibility of failure as was the Iron Duke to avoid risking a battle with the slightest chance of defeat. As an operator his nerve and coolness were marvellous, while in after-treatment he was judicious beyond his generation. As he was one of the best practitioners of surgery, so he was one of its best expositors, whether by the tongue or the pen. We have heard surgeons, whose experience has been in the navy, the army, and in country practice, avow that amid the wreck of their early surgical note-taking or reading the words and doctrines of Syme alone survived. Probably there never was a better writer on medical subjects than he. With no pretension to style, he yet compressed his meaning into sentences which are

positive feats of the *multum in parvo*. If our own Paget is the Cicero of surgical writing, surely Syme is its Tacitus!

Dr. Paterson's account of Syme's contributions to surgery is by far the best part of his book; and from the resuscitated and galvanised corpses of old controversies, the reader will turn with relief to the brilliant operations performed by the great surgeon on the living subject. To these we have already made ample reference (THE LANCET, June 16th, 1870); while we still repeat, what Dr. Paterson does not indicate, that Syme did but scant justice to his contemporaries of the Dublin school. Indeed, he was slow to take suggestions even from anyone; and the one defect of his teaching was, his withholding from his class the contributions of his contemporaries in more than one department of surgery. His treatment of Simpson's ingenious device of acupressure is simply indefensible; while his attitude towards other and better-accredited operations will not bear scrutiny. But *jam satis*. When all is said and done, it cannot but be admitted that Syme was a great surgeon, a consummate teacher, and an admirable writer; that as a man he was kind, hospitable, and high-spirited; and that as a citizen he was devoted to the public weal, and, above all, to the department of it over which he presided. Enough, and more than enough, can be drawn from Dr. Paterson's pages to substantiate his claim to all of these attributes.

The Report upon the Sanitary Condition of the Districts of the Combined Sanitary Authorities of Oxfordshire. By GILBERT W. CHILD, Officer of Health to the above Authorities. London: Longmans. 1874.

THIS report embodies the results of an experience of twelve months' sanitary work in a large district, and a very interesting and instructive report it is. We do not know that it is not rather improved than otherwise by the fact apologetically referred to by the author—namely, that it is little, if at all, systematic in form and character. The existing legislation is mainly of a tentative kind, and the experience which Mr. Child has had of its working cannot fail to be of practical value, not only in indicating what are the principal sanitary defects in country districts, both urban and rural, but, what is of more immediate importance under present circumstances, in showing what alterations are required in the present sanitary laws, and their method of administration, in order to enable the authorities to deal effectually with these defects. The book contains some inaccuracies, and there are some points on which we differ from the author; but we strongly advise our readers to peruse this report for themselves, which, in the case of medical officers of health, may serve as a good guide in the conduct of their own labours and inspections.

In tracing out the causes of an epidemic of typhoid that prevailed in the village of Charlbury, and its probable connexion with sewage-contaminated water, Mr. Child incidentally ascertained an occurrence which served to indicate very clearly the porous nature of the soil of the place. Charlbury is a large village situated on hilly ground just above the valley of the Evenlode, on the oolite, the hill having a cap of lias clay. The water in the wells supplying the cottagers on certain properties was found to be so strongly impregnated with petroleum as to be quite unfit for drinking or for any domestic use whatever. The cattle of one of the proprietors, moreover, refused to drink at the spring where they were accustomed to drink. It was subsequently ascertained that some barrels containing petroleum or benzoline had been buried in an orchard. The hoop had become detached from one of these barrels, and the whole of the contents had escaped. The hole in which the cask was buried must have been immediately over the head of the spring which supplied the wells. The situation of the place where the barrels were buried was about sixty feet above the well at the turnpike, and distant from it (in a semicircle, the course occupied by the affected wells) about 250 or 300 yards. The occupiers of fifteen houses, containing eighty-two inhabitants, had been for ten days unable to use the water for drinking or cooking. Had this soakage been sewage instead of petroleum, who can doubt that the result might have been wholesale water-poisoning and an outbreak of typhoid fever.

The Treasury of Botany. A Popular Dictionary of the Vegetable Kingdom. With which is incorporated a Glossary of Terms. Edited by J. LINDLEY, M.D., and THOS. MOORE, assisted by numerous contributors. New and revised Edition, with Supplement. London: Longmans. 1874.

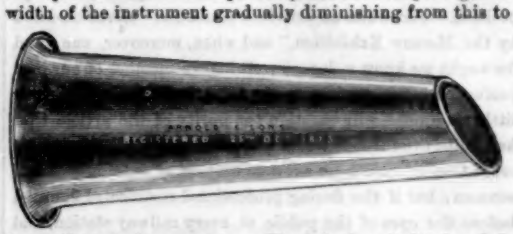
THE Treasury of Botany is an admirable manual of reference either for the general reader or the more advanced student. Its characteristic feature is the successful manner in which the very accurate and technical information has been conveyed in simple popular language, seldom involving any necessity for reference to the excellent glossary incorporated with the text. The illustrations of vegetation are as accurate in detail as they are artistic in execution. A considerable number of new genera are described in the supplement in this edition, but it is to be regretted that the dimensions and the stereotyping of the original work preclude the introduction into the text of a complete list of *all* the known genera for reference, instead of a selection only. It appears to us, moreover, that the small woodcuts, which are excellent as far as they go, might with advantage have been devoted to some definite object, such as the illustration of all the botanical orders or of botanical terms. As it is, they comprise generally illustrations of the most unknown species and genera, so as to suggest the idea that woodcuts already existing had been employed in the work.

New Invention.

TAPERING METALLIC TUBULAR SPECULUM, (REGISTERED.)

SUGGESTED BY DR. J. HALL DAVIS.

THE advantages this speculum presents over glass-silvered specula in general are its non-fragility and its tapering form; it is easier of introduction, and the reflective and illuminating power is greatly increased; the opening being much wider, there is considerably more room for operations. The speculum has a trumpet-shaped external opening, the width of the instrument gradually diminishing from this to



its smaller uterine aperture. The tube is suitably beveled off at its uterine end, and the edges carefully rounded. It is made in three most useful sizes, and produced in two combinations of metals—one electro-silver plated and gilt at uterine end; and the other nickel-silver plated, which resists the action of acid and will not tarnish. They are considerably lighter than any metal speculum hitherto introduced, and much cheaper.—This speculum is manufactured by Arnold and Sons, of 35 and 36, West Smithfield.

THE LANCET.

LONDON: SATURDAY, JUNE 13, 1874.

IF the Committee of the House of Commons now sitting under the presidency of Mr. CLARE READ does nothing else, it will at all events as a result have shown the public very conclusively the necessity that exists for some sort of legal provisions to prevent the adulteration of food and drink. Many years have elapsed since THE LANCET Sanitary Commission first compelled attention to this very important subject, and showed by the strongest possible evidence that in many of the ordinary articles of diet purity could not be obtained, or was obtained with difficulty. Although we have elected to assume as long as possible that state of blissful ignorance which is said to be, in this as in other matters, so superlatively convenient, facts at length became too patent and adulterations too palpable for endurance; and, with many misgivings on the part of our legislators as to its results, the Adulteration Act of 1872 became law. From the time that the Bill became an Act, and was brought into operation, the weakness of its most important working clauses has been day after day more and more apparent to judge, jury, chemist, manufacturer, and retail tradesman; and it is evident enough that the members of the last-named class have often been scapegoats for sinners of greater magnitude. In fact, the machinery of the Act is radically faulty. The inspectors appointed, not daring to venture into deep water in order to get at the whales and sharks of commerce, dive about in the shallows, and pounce now and then upon some wretched little minnow, who is forthwith brought up, fined, and perhaps, as a consequence, nearly ruined for sins for which, on *primâ facie* grounds, he could not possibly have been responsible. For, to quote a very excellent letter on the subject from Dr. HASSALL that appeared in *The Times* of the 8th inst., we question whether, as a fact, all persons who sell articles of food have knowledge as to their quality. The evidence adduced before the Committee on Monday certainly went to prove this supposition. For, when an article is classed as "silver-medaled by the Moscow Exhibition," and when, moreover, one (and for aught we know a dozen) well-known member of our own profession has given it a testimonial, is it likely that your little tradesman will question the purity of the article that he retails, even if it is worth his while to do so? Men of his order have of course an average amount of intelligence and acumen; but if the flaring professional certificates flaunted before the eyes of the public at every railway station, and stuck upon nearly every manufactured article of food in the kingdom, have any commercial value, retail traders must and will be influenced by them as much and as directly as the ultimate buyer and consumer. No part of the evidence adduced during the past week is so unsatisfactory or so humiliating as that relating to the advertising use made of professional certificates. We doubt very much the wisdom or the dignity of permitting a certificate of this kind to be hawked about and placarded on half the hoardings in the kingdom; and when evidence is adduced to show that in some cases these certificates are worthless and misleading, the confidence of the public in medical men and analysts alike must inevitably be shaken, and that to a very serious extent. Before proceeding further, we must reiterate an oft-recorded conviction that no man, under any circumstances whatever, who holds a public appointment, should allow a document to go out of his hands that can possibly be used for the purpose of commercial advertising; for, by so doing, the independence of his judgment, and hence its value, is, in the eyes of the public, almost destroyed, and science of course suffers accordingly.

These remarks may properly precede another oft-repeated declaration of opinion on our part—viz., that analytical work is not the proper province of medical men; and on this point we desire to speak with no uncertain sound. The members of the profession who choose public hygiene as their special branch of study have, and will have, quite enough to do in working out scientifically the causation and prevention of disease, and may, when an analytical question arises, much more profitably hand it over to the chemist, pursue the stream of inquiry, obtain his deductions upon the special point raised, and use it as one among the many scientific means at his disposal to compass the end that he has in view. And hence we have always maintained, and shall continue to maintain, that the posts of medical officer of health and analyst should not, and, as we believe, cannot, as a rule, be held properly, and the duties performed efficiently, by one and the same person. This naturally leads us to the remark that, as it appears, the Pharmaceutical Society of Great Britain have not, with the advantages and privileges of a great position, done all that might have been done to create and prepare the class of analysts required for the working of the Adulteration Act. It is averred, and indeed the evidence adduced appears very much to strengthen the assertion, that the supply of analysts is not equal to the demand, and that the number of scientific men really competent to deal with such questions might, even in the metropolis, be counted on one's fingers. We take it that the Pharmaceutical Society is somewhat blameworthy in this matter. They knew several years ago that the Act was impending. The ball was at their feet; and if it be rejoined that the members of our profession still continue to cling to a class of work for which they are manifestly unfit, the authorities at Bloomsbury-square have but themselves to blame. It was, as we take it, their province (and certainly their interest) to have established a special class for skilled analytical work, and so to have had a supply of men, the demand for whom, as they well knew, must inevitably arise.

In foreshadowing the results that may be arrived at by Mr. READ'S Committee, and leaving its members to decide (1) as to what constitutes an adulteration, and (2) whether the merchant, the manufacturer, or the retail trader should be attacked by the law, it is noteworthy to observe that the drift of all evidence given as to the future working machinery points in the direction of a central official staff, to be, as experts, constituted a final court of appeal, and also to undertake the examination in bond of tea and other imported articles. All those who have any special know-

ledge of the subject are in accord as to the first recommendation. We may point out, in illustration of the second, the remarkably beneficial results that have been obtained in our mercantile marine from the official examination in bond of all lime and lemon juice used afloat. The gross adulteration of these articles assisted very materially to perpetuate the existence of scurvy in the marine. But the juice is now, in accordance with the provisions of the Merchant Shipping Act of 1867, examined by official analysts; and since the above date scurvy has declined among our sailors (a body of nearly 400,000 men) by more than 80 per cent. In this case the evil was patent, and the remedy has been applied with great success.

WE commend to our readers in search of the marvellous two papers written by Mr. ALFRED WALLACE in the May and June numbers of the *Fortnightly Review* "On Modern Spiritualism." In these the most astounding statements are made with such calm assurance and confidence that we are really at a loss to say whether the general experience of the human race is to be cast aside as worthless, or whether we are to admit the possibility of events taking place which are in point of fact miracles, and which are stated to be vouched for by large numbers of men who, apparently possessing sound faculties, have commenced as sceptics, have used every effort to discover deception, and have ended by becoming believers. We have used the term "miracle" advisedly, for many of the facts described in these remarkable papers can only be classed as miracles. A table rises up; an accordion performs; a bell rings without being touched by human hands; a red-hot coal is placed on an old gentleman's head, yet fails to injure the skin or singe the hair; flowers, consisting of anemones, tulips, chrysanthemums, Chinese primroses, and several ferns, absolutely fresh as if just gathered from a conservatory, appear where none were present before, and under circumstances that Mr. WALLACE believes excluded all possible trickery. A friend asks for a sunflower, and one six feet high falls upon the table, having a large mass of earth about the roots. In such statements as these we have the strangest association of the material and immaterial world—a relation which, to the ordinary scientific mind, is absolutely and entirely inconceivable. But more remains to be told. The phenomena hitherto alluded to were effected chiefly, if not exclusively, by invisible and intangible agents. But with the discovery of new subjects, endowed with the extraordinary powers of a medium, fresh phenomena have been observed. Luminous appearances of various kinds have been seen, followed by the apparition of hands, of faces, and finally of human forms—in one instance sufficiently solid to be embraced by Mr. CROOKES,—usually covered with flowing drapery. Fragments of these spiritual garments have in some instances been cut off by enterprising seers, but have unfortunately always melted away before their texture could be satisfactorily determined. Still more recently a fresh prodigy has been discovered. The beings by whom these terrifying phenomena are performed, casting aside all reticence, have permitted themselves to be *photographed*—dim spectral forms, shadowy semblances of the dead, that look not like the inhabitants o' th' earth and yet are on't, have positively consented, at the bidding of a poor mortal, to sit in the photographer's chair and allowed their cartes de visite to be taken. It has been reserved for English experimenters to penetrate that region where "entity and quiddity the ghosts of defunct bodies fly" to pose, focus, and obtain a negative of a real, genuine, unmistakable spectre, with marrowless bones and (if any) cold blood.

Mr. WALLACE has described, though chiefly, we regret to say, at second-hand, the mode in which these photographs were obtained. In one of the first instances Mr. and Mrs. GUPPY, who are well-known spiritualists, went to a photographer, who was not a spiritualist, for some cartes de visite of Mrs. GUPPY. After the sitting, the idea suddenly struck Mr. GUPPY that he would try for a spirit-photograph. He seated himself in the chair, told Mrs. GUPPY to go behind the background, and had a picture taken. There came out behind him a large indefinite oval white patch, somewhat resembling the outline of a draped figure. A few days afterwards Mr. and Mrs. GUPPY and their little boy went again to the same photographer *without notice*, and on this occasion the photograph presented the image of a tall female figure finely draped in white gauzy robes, standing directly behind and above the sitters, looking down on them and holding its open hands over their heads as if giving a benediction. The face was somewhat Eastern, and, with the hands, was perfectly defined. A second plate, taken directly afterwards, showed that the figure had slightly changed its position. Mr. WALLACE records several other cases, but only supplies as his personal testimony the single fact that a few weeks back he went himself to the same photographer for the first time, and obtained a most unmistakable likeness of a deceased relation.

The argument used by HUME in respect to miracles, and which appears to us to be applicable here, was that every possible event, however various may be its degree of credibility, must of necessity be more credible when it rests upon a sufficient cause lying within the field of what is called nature than when it does not—more credible when it obeys some mechanical cause than when it transcends such a cause and is miraculous. Mr. WALLACE cannot feel surprised that the world at large will prefer to seek in natural causes rather than in supernatural—amongst which objective spectres must still be counted, however satisfied mediums may be of their existence—the explanation of the phenomena he has described, and that people will be more inclined to attribute their appearance to deception, intentional or unintentional—in other words, to error of observation rather than to a revelation of a future state. That a figure invisible to all eyes save that of a medium should be able to reflect or emit sufficient light to make its impress on the plate; that the image should be brighter than the object—the effect be greater than the cause; that it should be able to move without muscles or nerves; that it should still preserve its human form,—all seems so utterly incomprehensible to us as to render argument useless and reason futile. We can only repeat that the fallacies are here innumerable, and a perfectly overwhelming weight of evidence is required to make such facts as these credible. May we be allowed to add that there is a more serious aspect of the question, and that in our belief the moral tone of the nation, far from

improving, as Mr. WALLACE believes, would certainly deteriorate under the influence of such views as these. If our banker could say that, in spite of every care, ghosts had removed the whole of the securities placed in his hands—if a servant-girl could allege that all her master's plate had been spirited away—or were it possible for still graver crimes to be committed under this plea,—with mediums as judges, would property or life be long safe? No, we think at present we must decline to accept spiritualism till this new school of thought has more satisfactorily determined the relation of the immaterial to the material world.

TO-MORROW the Hospital Sunday Fund will for the second time be the subject of appeal from a thousand pulpits at least in the metropolis, and we look forward with much interest to the result. We shall be curious to see if the fund in London year by year grows steadily, as has been the case in all the provincial towns in which it has been established. *The Times* very naturally points out that the discussions occasioned by the distribution of the fund of last year may have had a somewhat injurious effect in damaging the whole institution in the estimation of the public; and further, that a few other incidental circumstances may have worked in the same direction. We are disposed to admit the full force of these facts, and yet to hope that the collection will bear a creditable proportion to the collection of last year. We think that in the long run the public will regard it as one of the very virtues of this institution that it is public in its character, and that every act of it, and especially every act of the Distribution Committee, is sure to be thoroughly sifted and criticised by persons of different views and occupying different standpoints. Of one thing the religious people of London may feel well assured—viz., that the gift of £30,000 or £40,000 a year more than is subscribed in the ordinary way, for the benefit of the sick and dying of London, even admitting a few abuses, will be one of the most charitable and religious acts which they can perform. Everybody who tries for five minutes to realise the misery caused by sickness and death among the poorer classes in a community of three or four millions of people will see this at once. With numbers of these people existence is only maintained by a struggle. They have no reserve of strength or of means for a "rainy day." If some of them are improvident, others of them are not so, and really keep off the parish very creditably. But, provident or improvident, sick and dying people must be helped by religious people; their misery must be abated, and that which is "lame" must be "healed." Accordingly we expect this yearly collection to grow with the growth of London. Let us have criticism by all means, but so long as it is given in good temper and with a fair allowance for the views of others—as has been the case in all the discussions of this subject—it should only do good and increase the confidence of the public in the proper distribution of the money. That the churches may not be too well satisfied with their doings of last year, we may simply say that a collection of £30,000 would not put £1 per in-patient into the hands of the hospitals, to say nothing of that field of work and charity which is represented by the dispensaries and the out-patient departments. We are not complaining of the result so far. Last year's collection was a very good beginning. Every meeting at the Mansion House has been remarkable, as was anticipated, for the gathering of men of every form of faith—Christians and Jews, and Catholics and Protestants,—and of believers and unbelievers in every form of charity. We anticipate great advantages in the administration of medical charity to accrue from the various criticism of such a representative body as the Council of the Hospital Sunday.

WE feel it to be incumbent upon us to keep our readers *au courant* with all that relates to the Registration of Births and Deaths Bill, which touches so closely in many ways professional interests. The Bill was to have gone into Committee last week; but a postponement until Monday next has been found necessary, and the President of the Local Government Board has taken advantage of the delay to receive deputations on the subject of the Bill. It is understood that one of these was from the registration officers, who are naturally and properly anxious that a completer registration of births and deaths, which will inevitably throw additional work upon them, shall not render their offices more unprofitable than they are now. In many parts of the country it is extremely difficult to get competent men to act as registrars, for the emoluments are often very small, while the regulations under which the work has to be done are necessarily strict. No sensible man will question the value of a good system of registration, and, admitting its utility, we must be prepared to pay adequately those who are employed to carry it out. Should Parliament, therefore, be advised to improve the position of the local registrars, we hope the economists will not stand in the way.

Another deputation was composed of members of the Statistical Society, the Social Science Association, and the Institute of Actuaries. These three bodies are in a position to regard the Bill quite disinterestedly—apart from those considerations which are bound up with the objects of their existence. From the registration records are derived the statistical data requisite for the determination of life contingencies, and so they form the basis of the vast life-assurance business of this country: the statists and the actuaries are peculiarly on their own ground here. Again, the registers, in proportion to their completeness and exactitude, facilitate the identification of individuals for the transmission of property as well as for the protection of life against criminal designs: this is the field of the Social Science Association. It was a happy thought on the part of this deputation to go to the Minister armed with a printed statement of the various points they desired to enforce; and by placing that statement in Mr. SCLATER-BOOTH's hands they have probably ensured a more attentive and thorough consideration of their case than if they had trusted to verbal explanations alone. Dr. LYON PLAYFAIR, Dr. LUSH, and Mr. MUNTZ, in the House of Commons, will advocate most of the amendments in the Bill which the deputation desire to see carried out; consequently the stereotyped promise with which they were bowed out of the ministerial presence has a fairer likelihood of fruition than frequently happens. We need not here recapitulate

the defects of the Bill as summarised in the statement referred to, for they have been already substantially indicated by us during the last few weeks, and we have only now to await the decision of Parliament thereupon. Referring, however, to our protest against the length of time permitted by the Bill to elapse between the occurrence of a birth or death and its registration, we are informed that, under the Act recently passed for the civil registration of births and deaths in Prussia, births are required to be registered within a week, and deaths within two days. In Prussia, likewise, no burial is permitted to take place before the death has been registered, without the sanction of the police. Prince BISMARCK has evidently ideas of administration which take less account of individual hardships than those entertained by Mr. SCLATER-BOOTH.

LORD SANDHURST recently took occasion to move a resolution in the Upper House with the twofold object of eliciting some information he required, and of raising a discussion with respect to the mode of recruiting in the army. The subject is one of perennial interest; but spite of all the discussions and expedients followed from time to time, we do not seem to be very much nearer getting the requisite number of recruits or keeping those we do get. It is universally allowed that, in estimating the physical capabilities of the soldier, the most important elements are the relations of weight, height, and age to one another. As regards two of these elements of physical efficiency—age and weight,—it appears, according to Dr. LEITH ADAMS, that of the three armies—German, French, and British—England employs the youngest, and the French the shortest, men in warfare. Lord SANDHURST complains that the recruits joining our army are simply youths requiring two or three years in order to acquire the requisite stamina to enable them to become soldiers. Under the old system of unlimited service this was of little importance, because the number of such recruits in a regiment was relatively insignificant; but under the short-service system of six years the immature men now come to form the majority in a battalion. The Duke of CAMBRIDGE was compelled to admit that the physical power of a regiment was less now than it was formerly. There appears to be a general concurrence of testimony as to the superior efficacy of the pension system in alluring men into entering the army; and there does not seem to be any reason why the recruit should not have the option of long service with pension, or short service with subsequent retirement into the Reserve. If this Reserve Force is to be anything more than an expensive sham, however, the men comprising it must be called out and exercised much more frequently than at present. In favour of young soldiers it may be said that, being more adventurous and prodigal of life than old soldiers as far as the actual fighting goes, they do it well, and that they may be prohibited from marrying during their term of short service; but the actual fighting forms only a small part of a soldier's functions, and a regiment mainly composed of growing lads is incapable of enduring the hardships and fatigues of warfare, and is likely to become inefficient from acute diseases incidental to a tropical service like that of India. Moreover, the camps, running drills, and military manœuvres of our modern system tax the powers of the young soldier severely. After all it comes to this: you cannot buy a man for a soldier for less than he is worth. The numbers to be had are relatively few, the wages offered are low, and the curtailment of liberty inseparable from military life is distasteful. Conscription is out of the question, and the increase of pay necessary to bring the army into fair competition with other occupations would amount to a very considerable sum. Under such circumstances it might be worth while to raise the pay of the rank and of non-commissioned officers, and greatly increase the number of employments under the Government for soldiers who had served their country.

HE would be a bold man who would undertake to prognosticate what the law of closing public-houses will be when Mr. CROSS's Bill comes out of Committee. But we may be already assured that Mr. CROSS's bark is worse than his bite, and that, on the whole, taking the whole country into account, the hours for drinking will not be extended by the Government, that came in, *inter alia*, to do justice to that much-to-be-pitied class, the publicans. The publicans in London will all have to close at 12.30. In country towns, with a population of less than 2500, the hour of closing will be 10 P.M. In all other towns the hour of closing will be 11. Considering that now a certain time after the technical hour for closing is allowed to consume what has been ordered before it, and that by Mr. CROSS's Bill the hour will be sharp like Greenwich time, we may reckon that the London publicans will have ten minutes more in the twenty-four hours to sell drink in, and we are not fanatical enough to think that this will make much difference. We have no unreasonable or extreme opinions on this subject. We should accommodate all *bonâ fide* hungry people, such as respectable theatre-goers, solitary men who have to dine in eating-houses on Sundays, travellers, &c. But for night drinking, as such, we have no respect. And, with all deference to some of our contemporaries, and at the risk of being considered old-fashioned, we believe that practically the hour of closing public-houses at night fixes the imbibing habits of a large number of drinkers. If the public-house closes at 12, they will cease drinking and go home to bed at 12. If it keeps open till 1, they are quite able to go on till 1, but a little less able to go safely home, and a little more apt to get into a police station, or, as our reports show, to get into a hospital with a broken head or a broken leg. We are decidedly of opinion that, though Acts of Parliament cannot make men inwardly and morally sober, they can do something to abate coarse drunkenness that makes paupers of men, and lands them in hospitals at night. And this is something. It is abundantly in evidence that Lord ABERDARE's Act has achieved something in this direction; that, practically, it has occasioned little trouble to publicans; and that it has reduced the amount of adulteration of beer. It would have been more creditable to the Government if they had allowed more time to elapse before meddling with an Act which has been productive of such beneficial results. They have, however, by their

timidity and vacillation plainly shown that they were acting with reluctance and with a desire to reverse as little as possible the Act of 1872.

Medical Annotations.

"Ne quid nimis."

THE FELLOWSHIP OF THE COLLEGE OF SURGEONS.

THE recent examination for the Fellowship of the College of Surgeons has, we understand, been extremely fatal to the candidates, a very small percentage of whom succeeded in passing either the anatomical or the surgical examination. Of course this has created an outcry in the schools, and tales are rife concerning the questions asked and the bearing displayed by certain examiners, which, if founded on fact, no doubt receive some amount of colouring from the disappointment of the examinees. Although we sympathise with the rejected candidates and their teachers, we cannot say that we regret that the examiners of the College are beginning to raise the standard of the Fellowship somewhat above that of the Membership, to which it had been lowered of late; and that hereafter the Fellowship seems likely to become the distinction it ought to be, instead of a mere surgical qualification. The fact is, as we have more than once pointed out, that the College authorities made a great mistake when—principally, we believe, at the instigation of the late Mr. Partridge—they allowed third-year's students to go up for the anatomical examination for the Fellowship, although possibly some five or six years would elapse before they would become eligible for the surgical examination. The consequence has been that these gentlemen have paid no further attention whatever to anatomical study, and have rapidly forgotten what they did know, and this the examiners have recently become aware of. The same thing applies, though possibly with less force, to the Membership examination, the greater number of candidates for which passed their primary or anatomical examination two years at least before going up for the diploma; and here, again, the ignorance of surgical anatomy has proved very great, and has led to disastrous results.

Whilst, however, we strongly uphold the demand for a good knowledge of surgical anatomy, we think it only right to remind the examiners that the pass examination for the Fellowship is one for practitioners rather than students, and that it is not fair to demand a knowledge of purely anatomical minutiæ which are of no practical utility, but are mere burdens to the memory. It may be doubted whether the average hospital surgeon, unless he happen to be a teacher of anatomy, could answer some of the purely anatomical questions asked at the recent pass examinations for the Fellowship and Membership, and we imagine that some of the examiners sought rather to display their own information than to test the candidates' knowledge. A written report upon an actual surgical patient, with *viva voce* questions arising out of the report, would form a much better test of a candidate's surgical knowledge than the successful answering of mere anatomical or surgical conundrums.

REVIVAL AFTER POISONING.

THE successful issue of numerous experiments by Dr. R. Böhm, of Dorpat, recorded in the *Centralblatt* (May 2nd, 1874), of revivification of animals apparently dead by means of artificial respiration are worthy of something more than a passing notice, since they suggest that if artificial respiration, with compression of the thorax in the vicinity of the heart, were fairly carried out in some instances of poisoning in the human subject equally satisfactory results might be attained. Böhm injected a few grains of potassium salts into the veins of cats, and found that rapid sinking of the blood-pressure and arrest of the heart's action took place. The breathing soon ceased also, and the animal died in convulsions. If now within a certain time, which Böhm found must be within eight minutes from the stoppage of the respiration, artificial respiration and rhythmical compression of the thorax were gently but effectively performed, the heart suddenly, though sometimes not till after the lapse of *forty* minutes, began to contract regularly, and the tension of the blood in the vessels, which had previously fallen to zero, soon rose, and, after a short space of time, often considerably exceeded its normal amount. Spontaneous respiration recommenced in from three to five minutes after the heart had awakened to renewed activity. In from three to ten minutes after this reflex excitability was observed, and the animal then rapidly woke up as if nothing had happened to it. The experiments failed if too long a time had been allowed to elapse before the artificial respiration and compression of the thorax was commenced. These facts place in a new light the excitability of the heart of warm-blooded animals, showing that the apparently dead animal may be resuscitated even when so long a period as forty minutes had elapsed from the time of the total absence of contraction in the heart. As in all the experiments the blood-pressure was measured, it was satisfactorily demonstrated that the compression of the thorax produced on each occasion a rise varying from 30 mm. to 60 mm. of mercury, even when the arterial circulation had almost absolutely stopped and its pressure was reduced to zero. In a practical point of view it is of special importance to note that artificial respiration (through the canula of the trachea) was never sufficient for resuscitation; it was in all instances necessary to superadd compression of the heart. It is difficult to say whether the recovery in these cases was due to the mechanical excitation of the heart or to the slight movement of the blood shown by the manometer to take place. At any rate, it seems to afford a valuable hint that, in cases of poisoning by volatile agents, or by materials which are decomposed in the circulation, artificial respiration is not the only means to be relied on, but that this should be supplemented by firm pressure on the thorax, which may be effected either by the person who is performing the artificial respiration or by an assistant.

A NEW TREATMENT OF LEPROSY.

DR. J. DOUGALL, officiating senior medical officer, Port Blair, Andaman Islands, has recently published a report of the results of his experience of Gurjun oil, an oleo-resinous product of the *Dipterocarpus lævis* and other allied trees, in the treatment of leprosy. In order to avoid complications and to test the remedy, no change was made in the diet of the lepers. Of the twenty-four cases under treatment during the past six months, Dr. Dougall says every one has been decidedly benefited; every ulcer, without exception, has healed up and not broken out again. But the most marked benefit has been derived by those suffering from the anæsthetic form of the disease. The oil is administered internally, in combination with lime-water, and an ointment composed of the same ingredients is rubbed into the bodies and affected parts of the patients. In order to remove this ointment from their persons, the lepers are directed to dust themselves over with a finely-powdered dry earth, and then proceed to a stream and thoroughly wash themselves; after which they take a dose of the remedy and rub it into their bodies. Possibly the dry earth, as a local application,

may have been of avail in these cases. Anyhow, Dr. Dougall gives a very graphic account of the marvellous improvement that takes place under this plan of treatment. Men at Port Blair who had not been able for years to do more than drag out a miserable existence, are now able and willing to work, and every sore is quite healed. The time of observation has been long enough, in his opinion, to warrant him in stating that leprosy, both tubercular and anæsthetic, can be arrested, and the condition of the lepers greatly ameliorated, by the use of this Gurjun ointment and oil.

SANITARY WORK AFLOAT.

A GREAT deal has lately been written on this important subject, but it appears that there is work on this score about the inland as well as the seaboard towns of the kingdom. Mr. George Smith, of Coalville (a village near Ashby-de-la-Zouch in Leicestershire) has recently made some important investigations into the sanitary condition of the floating population on the rivers and canals in and about his county. He describes a cabin of 200 cubic feet, which housed permanently a man and his wife and six children, three of whom were girls of ages ranging from ten to sixteen years. The main object and result of Mr. Smith's inquiries is to urge the Government to include such children in the provisions of the new Factory Bill just brought into the House of Commons by the Home Secretary, Sir Henry Selwyn-Ibbetson, and Lord Sandon, or, at all events, to institute an inquiry into their sanitary condition. A report compiled some time ago by Dr. Harry Leach, medical officer of health for the port of London, showed that there are in the Thames 2385 sailing and 4000 "dumb" barges, which "alone represent a floating population of about 15,000 souls." If this estimate be correct, it is evident that it must include a great many children, and hence that both in the metropolis and the provinces these floating waifs and strays should come under the notice of school board, factory, and sanitary authorities. By way of obtaining accurate statistics of our normal floating population, instructions might be given to all urban and rural as well as port sanitary authorities, to report upon the number and condition of those who live permanently afloat. And we may observe parenthetically that, in the execution of this duty, port sanitary inspectors would gain an amount of information that would be specially useful to them in the ordinary run of work.

SUICIDE IN THE BRITISH ARMY.

MR. W. H. MILLAR, of the Statistical Branch of the Army Medical Department, recently read a paper before the Statistical Society on the above subject, which contains much interesting and curious information. The returns of mortality among the non-commissioned officers and men of the British army during the ten years, 1862 to 1871 inclusive, show 663 deaths reported under the head of suicide; or in the annual ratio of 0·379 per 1000 of the strength. As compared with the civil male population in England at corresponding ages, this ratio of deaths from suicide was excessively high; compared with foreign armies, it was slightly lower in the British than in the French or Belgian armies, considerably under the ratio in the Prussian, and less than half that of the Austro-Hungarian army. Suicide was considerably more prevalent among our troops serving in India than among other portions of the force. More than half the suicidal deaths in the army are the result of gunshot wounds. In 1870 the number of deaths by suicide diminished, and the decrease was probably connected with the publication of the Horse Guards' Order directing the service ammunition to be removed from the men's pouches and placed in the regimental expense magazines. The late Lord Lytton makes one of his characters declare that those who know life will hardly style it joyous, and we suppose the soldier is less capable, the older he becomes, of bearing up against *ennui*, for the tendency to commit suicide increases with increasing age; and, curiously enough, suicide is more prevalent in the cavalry of the line than in any other arm, and lowest in the household cavalry. One of the chief practical points in Mr. Millar's paper is the marked contrast between the army and civil population as to the mode of committing suicide—the facility of using firearms in the former class apparently accounting for the difference between the military and civil rates.

HEALTH OF MACCLESFIELD.

DR. GEORGE BLAND, medical officer of health for the borough of Macclesfield, has just issued his first report of the sanitary condition of the town, which contains some interesting information on the topography and causation of phthisis. The death-rate from consumption has for some time been higher in Macclesfield than the average for the country, and has been attributed to the employment of a large number of the inhabitants in silk factories, which is the staple trade of the town. The late report, however, of Dr. Bridges and Mr. T. Holmes on the health of the workers in textile fabrics, in which those gentlemen gave the result of their inquiries among medical practitioners, showed the fallacy of the belief that the increased mortality from phthisis was due to the deleterious processes of the silk industries. Dr. Bland's experience as health officer confirms the opinion of the commissioners on the healthfulness of the trade. He believes that, with the single exception of "dressing of waste silk," which generates dust, there is no process in the manufacture calculated to injuriously affect the health. The true causes of the excess of deaths from consumption, in Dr. Bland's opinion, is the existence of undrained streets (in which there was observed a great preponderance of disease as compared with properly sewered streets) and the general absence of ventilation in sleeping and other rooms of houses of the smaller sort, many of which have neither back doors nor back windows, whilst what windows they have are made with iron frames, which do not open at the top or bottom.

The infantile mortality during the past year amounted to 26 per cent. of the total deaths, which is far less than the rate in many of our manufacturing towns. While unwilling to under-estimate the perils which beset the children of women employed at factories, Dr. Bland thinks that the advocates of the non-employment of married women have, in their zeal, overrated the dangers of female factory work. He does not ask for the total exclusion of married women, but for means to prevent the employment of women advanced in pregnancy, and for one month after parturition. One cause of infantile mortality is the pernicious practice of giving children narcotics, such as Godfrey's Cordial, paregoric, syrup of poppies, and even tincture of opium. We are afraid no amelioration can be effected in this respect until greater legal restrictions are placed on the sale of such drugs.

UNIVERSITY AFFILIATION.

THE Council of King's College, London, has submitted, and the Vice-Chancellor of Cambridge has published, proposals for affiliating the College with the University. Associates of King's College, and such other students as shall have attended the regular courses of lectures there, and gained special distinction in the examination, shall, it is suggested, be allowed, on presenting satisfactory certificates from the Principal, to enter as second-year graduates, pro-

vided that they pass such examinations as the University may require. It is further proposed that undergraduates of Cambridge shall be allowed, on obtaining special permission, to spend their last year at one of the technical schools at the College, receiving all the advantages of matriculated students, and shall take their degrees at the University in regular order. This is emphatically a movement in the right direction. We hope that a similar largeness of spirit will also extend to the sister university, and open up to other students besides those of King's College the advantages which have hitherto been reserved for the alumni of the Isis and the Cam.

SIR THOMAS BAZLEY'S ATTACK ON THE COMMISSIONERS ON FACTORY LABOUR.

A SHARP correspondence is published in the *Manchester Guardian* between Dr. J. H. Bridges and Mr. Holmes, commissioners who inquired for the Government into the effect of factory labour on the health of women, young persons, and children, on the one hand, and Sir Thomas Bazley, M.P., on the other. The commissioners complain of a speech made by Sir Thomas, in which he charged them with partiality, with being more ready to receive the evidence of operatives than employers, and with declining to listen to the remarks of several intelligent employers of labour, "a refusal which amounted to a suppression of truth." On being asked either to substantiate or withdraw such grave charges, Sir Thomas answers by vague extracts from local newspapers, which are far from warranting what he had said; and, on being further pressed, gives as another authority a remark by Mr. John Cheetham, J.P., still less to the point. The medical profession will not require any proof that Dr. Bridges and Mr. Holmes acted as Sir Thomas Bazley charges them with having acted. For ourselves, we have simply to say that the evidence of these gentlemen seemed to us just such evidence as might have been expected from scientific men of their standing, and that it appeared to us highly judicial and fair to both sides. The commissioners speak with great caution as to the existence of any such evils from factory labour as would justify legislation.

THE NAVAL MEDICAL SERVICE.

THE morning papers of Thursday last contained an amusing account of the reception of the usual deputation from the British Medical Association by the First Lord of the Admiralty, on the subject of naval medical reform. Of the twenty-two points (!) urged on the First Lord's attention, some are entirely beside the mark, and others are the well-known ones of optional retirement after twenty years' service, of increase of the inspectorial rank, &c., which have been urged repeatedly in the columns of THE LANCET with such effect that, as we were fully aware, the Admiralty, with the assistance of the Director-General, are giving them their full consideration. As Mr. Ward Hunt neatly put it, "even without the kind assistance of the British Medical Association, it was the intention of the department to have gone into the question with great care." But, nevertheless, we must be prepared for the usual self-laudatory flourish of trumpets from the organ of the Association.

SMALL-POX AT BIRMINGHAM.

THE visit of Dr. Buchanan to Birmingham is likely to achieve much sanitary good for that town and district. By attending meetings of the Town Council and of the boards of guardians and sanitary authorities of the various parishes surrounding Birmingham, he has been able to impart much valuable information on the subject of small-pox and its prevention, and also on many collateral sanitary questions. Revaccination is being carried out with more vigour than ever; about 150 workmen availed themselves of the opportunity of free vaccination in the Committee-room of the Town Hall last Saturday, and public feeling is evidently aroused to the necessity of more efficient vaccination and revaccination, both of children and adults.

Dr. Buchanan delivered an address to the Town Council at its last meeting, and urged, what we have repeatedly advised, the immediate establishment of a public hospital for the reception of cases of infectious diseases. When asked if he would recommend the cottage-hospital system, he stated that, in his opinion, it was unsuited to so large a town as Birmingham, and that he thought a site might be found within the boundaries of the borough suitable for such an erection. Removal of patients suffering from fever or small-pox, to any considerable distance beyond the borough limits, as upwards of four miles, he considered to be inconvenient, and also to be fraught with danger to the patients.

INJECTION OF HYDRATE OF CHLORAL INTO THE VEINS IN TETANUS.

THE Surgical Society of Paris, at the meeting of May 13th last, discussed the merits of this method, proposed and warmly defended by M. Oré, of Bordeaux. The universal opinion was that such a measure, except in cases where no other mode of administration is possible, is to be decidedly reprobated. Very powerfully did M. Tillaux speak against it, after relating the case of a girl who suffered from tetanus and died, either in spite of or through the injection of chloral into the veins. At first it appeared to answer in this girl's case, as much as 150 grains dissolved in five drachms of water being injected. The patient seemed to revive, but in the night she became worse, and a second injection was undertaken by the house-surgeon. In the morning M. Tillaux injected the hydrate again, these three injections amounting to 300 grains of chloral. During the last injection the patient died, and the cephalic vein was found full of clots up to the axillary vein, which latter also contained some as far as its junction with the subclavian vein. When it is recollected that the Italian surgeons use chloral when they wish to obliterate veins, it is no wonder that the above-mentioned clots were found. M. Oré, of Bordeaux, makes the great mistake of crying up his method, and even proposing to substitute injections of chloral into the veins for inhalation of chloroform when simple anæsthesia is required.

FRIENDLY SOCIETIES.

THE Bill which the Chancellor of the Exchequer has introduced for putting the friendly societies of this country on a better footing is a measure of first-rate importance. It gives Parliament the opportunity of doing a really great work for our lower-middle and working classes, by giving them a far more favourable position than they have ever yet occupied for practising habits of providence, and so raising themselves out of the slough of poverty and dependence which has swallowed up so many thousands of their fellows. We reserve any remarks upon the thoughtful and statesmanlike speech of Sir Stafford Northcote, explanatory of the principles of his Bill, until we have had an opportunity of seeing the Bill in print.

LORD CHIEF JUSTICE COCKBURN.

WE regret to hear that the Lord Chief Justice is at present suffering from indisposition. Considering the very arduous and prolonged character of Sir Alexander Cockburn's judicial duties of late, we cannot be surprised at the intelligence. No man's constitution could have borne the

strain to which his lordship has been exposed, even if he possessed the physical and mental vigour that characterise the Lord Chief Justice, without injury to health; and we regret that Sir Alexander was not induced to take a prolonged rest at the close of the great Tichborne trial. The confinement in a hot, close court from day to day, with the loss of exercise which it necessarily entailed, told with most injurious effect on the late Lord Chief Justice Bovill, and was doubtless the predisposing cause of his fatal attack. It is to be earnestly hoped that Sir Alexander Cockburn will not presume too much on his enormous capacity for work, but allow his powers to "lie fallow" until such a time as he can return to his duties with renewed vigour and safety.

SMALL-POX ON THE RAILWAY.

AT a late meeting of the Fulham District Board of Works, Dr. Burge, the medical officer of health, made a statement calculated to alarm nervous railway travellers, and one disclosing circumstances which we have reason to believe are not of uncommon occurrence. A young woman named Mary Fox left Birmingham, while suffering from small-pox, for Hastings. For some reason which does not appear, she left that pleasant watering-place for London, and, on her arriving at Victoria Station, her condition was pointed out, and was, indeed, so evident that it did not require medical authentication. She was, however, allowed to proceed further on her journey, but on arrival at Willesden she was there detained, and afterwards removed to the Small-pox Hospital. Here was a person ill of small-pox travelling as she chose through the country, and carrying the infection of a deadly disease with her. Someone must be greatly to blame in the matter, but it is impossible, without ascertaining further particulars of the case, to fasten the onus on the parties who, by their neglect, had risked the health of so many. Assuming that the woman's state was not discovered at Hastings, how was it she was allowed to travel beyond Victoria Station, where it was well known that a small-pox patient had arrived by train? We quite agree with Dr. Burge that the case should not be allowed to drop without a searching inquiry.

NIGHT-DRINKING AND THE HOSPITALS.

IN answer to our inquiries, the house-surgeon of the Westminster Hospital expresses his regret at the absence of records as to the relative number of accidents occurring to persons in a state of intoxication before and since the passing of the Act of 1872, but believes that the cases are now fewer, and occur at an earlier period of the night. Mr. Arthur Tomes, of the Middlesex Hospital, finds the surgical casualties treated between 11 P.M. and after 1 A.M. in 1874 more numerous by forty than in 1870. He is quite certain that two-thirds of these cases are due in some way or other to drunkenness. The Middlesex Hospital is the only one, up to this time, which reports an increase in the number of night cases due to intoxication.

SPONTANEOUS GENERATION.

M. ONIMUS has again been occupying himself with the subject of spontaneous generation, and at the last meeting of the Société de Biologie de Paris brought forward a new apparatus with the aid of which he has been enabled to trace the formation of bacteria, even when, as he believes, the admission of germs, supposed by Pasteur to be floating in the air, was completely prevented. The apparatus in question consists of a flask with three tubules, in which a vacuum is made by filling it with water, which is again expelled by prolonged ebullition. One of the needles ends in a hollow needle, and this is made to penetrate either the heart of a living rabbit or the interior of an egg. On the cooling of the flask several grammes of the blood of the animal, or of the albumen of the egg, are sucked up into its interior. Air is then allowed to enter the flask, but only after filtration through a thick layer of cotton wool. M. Onimus then finds that, after the lapse of a day or two, molecular granules make their appearance, and soon afterwards vibrios and bacteria are visible.

THE ARMY MEDICAL SERVICE.

THE very unexpected intelligence of the death of Surgeon-General Dr. Beatson, at Simla, will give rise to a step of promotion in the ranks of the British Medical Service, and Dr. Mackinnon, the latest appointed Deputy Surgeon-General, may be congratulated on the prospect of at once serving in his new rank. As regards the appointment of Principal Medical Officer of the British Forces in India, medical officers will turn to the Army List and speculate as to the name of the successor to Dr. Beatson. Dr. Bent, we notice, heads the list of Deputy Surgeons-General, and we presume that he will be promoted to the rank of Surgeon-General.

INFANT MORTALITY.

DR. ROBERTS-DUDLEY, medical officer of health for Stalybridge, has called the attention of the sanitary authorities to the excessive infantile mortality prevalent in the district. He attributes this waste of young life to the too early or partial weaning of infants by mothers engaged in factories, and to ignorance in the subjects of clothing and feeding. At Burnley the infantile mortality has reached such a high rate that, out of 100 deaths, 62 were those of children under three years of age. Measles and small-pox had a large share in producing this fatality, while another cause is, as at Stalybridge, the practice of putting children out whilst the mothers are at work in the mills.

SURGEON-MAJOR THOMAS LOWE.

FROM Bangalore the death is announced, on April 30th, of Surgeon-Major Thomas Lowe, of the Madras Sappers and Miners, who had been in failing health for a long time. Dr. Lowe's talents were well known and acknowledged, and the professional papers communicated by him from time to time were valuable. He was also the author of a narrative of a portion of the incidents of the Mutiny. Dr. Lowe's connexion with the Sappers extended over sixteen years, with the exception of a short period when he was at home. Dr. Lowe served in Persia under Sir James Outram, and was present at the bombardment of Mohumrah, and in the Central India campaign under Sir Hugh Rose, and was present in several actions. He had received medals for both campaigns. For services in the Mutiny he was one of the few who were rewarded with the brevet rank of surgeon. Dr. Lowe was only forty-four years of age.

THE CITY HEALTH OFFICER AND ANALYST.

IN spite of the strenuous opposition of the press, lay as well as professional, Dr. Sedgwick Saunders has been almost unanimously elected to the responsible posts of medical officer of health and food analyst to the City. Objection was raised to the appointment that Dr. Saunders, being a member of the Common Council, was, *ipso facto*, ineligible. The Recorder of London, however, gave opinion to the effect that Dr. Saunders was not disqualified from applying for, or holding, the office in question. The post of public analyst also fell to Dr. Saunders, who now holds precisely the same appointments as his immediate predecessor, Dr. Letheby. We congratulate the City on its health officer.

Dr. Saunders has already done yeoman's service in combating the cholera epidemic, and ever since he has been labouring hard to bring up his qualifications to the highest point of efficiency.

AN INQUIRY INTO THE "BURDWAN FEVER."

WE lately announced that the Government had disclaimed all intention of sending out a Medical Commission from this country to investigate the nature and causes of the fevers of India; and we now learn that Surgeon D. Wilkie, M.B., has been appointed to conduct a special inquiry in connexion with the Burdwan fever. Surgeon Wilkie will have Drs. Lewis and Cunningham associated with him in his work, and we make no doubt that, as far as patient and skilful scientific observation is concerned, the inquiry will be well conducted, but it will be attended with difficulties of which people unacquainted with Indian customs can form but little idea. Surgeon Wilkie studied at Glasgow University, and afterwards at some of the continental hospitals—of Germany especially—and his career at Netley was one of great promise and success.

TRAINED NURSES.

THE Duke of Westminster, in commenting on the demand for trained nurses, which increases far more rapidly than the supply, announces that it is intended to establish a training school in connexion with Westminster Hospital, under the superintendence of the Misses Merryweather, as we intimated some time back. A home for the nurses, outside the hospital, is required, where the probationers may reside, and Madame Christine Nilsson has generously volunteered to give a public concert in aid of the funds, under the immediate patronage of Her Majesty the Queen and the Princesses of the Royal Family.

THE International Cholera Conference will meet at Vienna on the 15th inst. Dr. Edward C. Seaton, the senior inspector of the Medical Department of the Local Government Board, has been appointed to represent this country at the Conference, which will be presided over by Count Andrassy. The terms of an International Treaty respecting measures of quarantine when cholera occurs in Europe will be discussed, and it is probable that an International Commission will be nominated to report upon the causes of the disease.

AN emigrant depôt has been established at Blackwall, capable of accommodating 400 adults. As a vast number of emigrants sail from London for New Zealand, the convenience of this "head quarters" establishment is very much appreciated; and in the event of small parties of emigrants being sent here from Northern Europe to be transshipped, they will with this arrangement be far less likely to import epidemic disease into the port and the metropolis.

IN the fifth annual report of the Pimlico Provident Medical Institution and Lying-in Charity the managing committee are compelled to state that a great falling off had occurred in the voluntary subscriptions during the past year as compared with 1872, whereby the usefulness of the institution had been greatly hampered, and a debt of £164 incurred, to meet which there were in assets only £2 2s. 1d. This monetary deficiency, as compared with former years, is attributed to a belief prevalent amongst many wealthy donors that the award obtained of the Hospital Sunday Fund would be so large as to warrant a reduction or suspension of the usual subscriptions. Such reasoning is not borne out by facts. To those who remember the small sums which were apportioned last year to the various dispensaries it will not appear surprising that the sum handed over to the Pimlico Institution was only £12 15s. The committee find that the working of combined free and provident principles, as compared with the strictly provident system alone, produces most satisfactory results, and meets with the approval of the benevolent public. We hope that the current year will show a goodly list of donations and subscriptions.

WE have to record another death from the effects of carbolic acid administered by mistake. In the Birkenhead Union Workhouse the head nurse had occasion to give an old man a dose of black draught. By a deplorable oversight an ounce or so of carbolic acid was given, with the fatal result of causing death in about three-quarters of an hour. We are almost tired of reiterating the advice that carbolic acid and other poisonous and corrosive liquids, when used in workhouse dispensaries, should be kept in specially prepared bottles with narrow mouths. We have thought of late that there is too great a run on carbolic acid in public institutions. It is no doubt an admirable antiseptic and disinfectant, but it need not be always kept in huge quantities on every shelf and stand.

THE deaths registered in London during the past week amounted in number to 1257, and included 44 from measles, 32 from scarlet fever, 7 from diphtheria, 33 from whooping-cough, 23 from different forms of fever, and 22 from diarrhœa. For the third consecutive week no death from small-pox was recorded. The deaths from diseases of the respiratory organs and phthisis declined to 363. Different forms of violence caused 61 deaths.

WE understand that the French Minister of Agriculture and Commerce has rescinded the newly imposed regulations complained of by Lord Alfred Paget and others, and has directed that for the future all vessels from England arriving at Boulogne are to be admitted at once to free pratique, without being required to be provided with a clean bill of health. Vessels from foreign ports not English must, however, carry a bill of health to be admitted to pratique.

A CASE of small-pox was discovered last week by the Customs' officers at Gravesend, on board a homeward-bound vessel. The port sanitary authorities were at once communicated with, the patient removed to the hospital-ship, and the vessel fumigated, under the direction of the medical officer, before hauling into dock. No other cases have occurred among the crew.

THERE are already symptoms of disunion among combined sanitary authorities. The Cockermouth rural and urban and other authorities have reappointed their medical officer for another year, but the urban sanitary authority of Workington has withdrawn from the combination. So much the better for the combination and so much the worse for the medical officer.

THE Local Government Board, in replying to a question touching the extension to imbeciles of the increased subsidy granted for lunatics, stated that no special claim could be made by ratepayers in respect of imbeciles. Any application towards this end would, however, be placed before the Chancellor of the Exchequer, in view of future consideration of the question.

MUNICH still maintains its pre-eminence as the most unhealthy of the European cities. The annual death-rate, according to the latest returns, was 41 per 1000. Berlin and Turin come next, with death-rates respectively of 30 per 1000 annually.

IN the Convocation to be holden at Oxford on Wednesday, June 17th, the degree of D.C.L. will be conferred, *honoris causâ*, on Victor Carus, Professor of Comparative Anatomy and Zoology in the University of Leipsic, Major-General Sir Garnet Joseph Wolseley, Sir Thomas Erskine May, and the Right Hon. Sir George Mellish.

THE small-pox epidemic at Preston shows no signs of abatement. There are at present thirty-five cases under treatment in the workhouse hospital alone, while the number of patients attended by private practitioners is very large. The Local Government Board has sanctioned the erection of a temporary small-pox hospital in the town.

THE London School Board has passed a resolution in favour of making plain cookery, and the household work connected with it, part of the education of girls. This is a movement in the right direction.

CHOLERA in an epidemic form is said to exist in Silesia, but up to the time of going to press no precise particulars have been reported.

PROFESSOR ROLLESTON has just been elected a Member of the Hebdomadal Council at Oxford, in place of the Right Hon. Montague Bernard.

WE are sorry to have to state that Sir Charles Locock is seriously ill with cardiac disease. He is under the care of Sir George Burrows, M.D.

DR. RUTHERFORD, of King's College, has been appointed Examiner in Physiology in the University of Cambridge.

REPORT
OF
The Lancet Sanitary Commission
ON
THE DWELLINGS OF THE POOR.

No. III.—SOUTHWARK.

THAT low-lying district on the south of the Thames and skirting the eastern side of the Waterloo-road, which occasionally furnishes the London hospitals with mild cases of ague, and which was completely flooded during the recent high tide, seemed to us to be a district worthy of our early attention.

The Census Returns for 1871 state the population of St. Saviour's, Southwark, to be 175,049. These lived in 23,314 houses, on an area of 1119 acres. Part of this acreage is water, and the portions of the district lying on the river-bank are almost entirely, if not completely, occupied by wharves and warehouses; so that the actual area occupied by houses is certainly much less than 1119 acres. Then, again, the thoroughfares of the district are wide, so that the actual crowding of the population is much greater than it appears on paper. Dividing the population by the acreage and the number of houses, we get 156 inhabitants to every acre and nearly 8 to every house. These figures are much less than the similar figures in Soho; and, after making every allowance, it is evident that the overcrowding in this district is trifling compared with that in the district which was the subject of our last report. Our readers must not be misled by the low number which indicates the house-crowding, for two-roomed houses are as common here as ten-roomed houses are in Soho. When the next Census is taken, we hope that the number of rooms in each house will be made part of the return; for in this way alone can any adequate notion of overcrowding be obtained in a city where separate rooms are frequently separate tenements.

Perry's-place, the first locality visited, presents many of the characteristics observable in this part of London. It consists of six cottages, forming a court. The cottages contain two rooms each, and all face into the court, which is not much more than ten feet across, so that opposite neighbours might almost stand in their own door-ways and shake hands. The court is closed at either end, and is entered by a narrow passage at one side. At the north end is the water-tap, which is supplied by one of the two water-butts, placed over the two waterclosets. The court is well paved, and slopes gradually to the south end, where there is a well-constructed trap-gully, through which the refuse water of all kinds flows into the sewer. The arrangement reminded us of the court of a Pompeian house (robbed, of course, of anything like ornament) with its low two-storeyed dwellings standing round it, and its impluvium in the centre. There was no smell, the closets were clean, and the drain-trap acted perfectly, and never smells, we were told, except in the morning, when sometimes it is very offensive. This smelling of drains and traps in the morning is a very common occurrence, and one about which there is considerable misunderstanding. It is generally attributed to the pressure of the gas in the sewer forcing the gas through the water in the trap. This very often is so, no doubt, but it cannot be too strongly impressed upon all who have anything to do with traps that they may smell most offensive without any pressure at all. Traps vary very much in the details of their construction, but essentially they all consist of the interposition of a stratum of water between the gas in the sewer and the air on the other side of it. Now water readily absorbs gas of almost every kind, and as readily gives it off again, so that if the water in a trap be not constantly renewed it very soon becomes saturated with gas, and then begins to impregnate the air with foul odours. Some time since we devised a simple experiment which served to illustrate this point. A U tube, having its ends prolonged horizontally, was filled with water, so that a column an inch and a half in depth occupied the bend. This water was conducted into the bend without wetting the side of the tube. A bottle of sulphuretted hydrogen was connected by an elastic nozzle to one end of the U tube, the nozzle being closed by a spring clip. To prevent any pressure being exerted by the gas in the bottle, a second tube was conducted through its cork, the other end of which was made to dip into a vessel of water. Into the far end of the U tube a piece of bibulous paper, moistened with a solution of acetate of lead, was placed. The clip was then taken off the nozzle of the bottle containing the sulphuretted hydrogen, and within six minutes the paper at the far end of the U tube had commenced to blacken, showing that the gas had, in this short time, passed, without pressure, through the stratum of water in the bend of the tube. If, therefore, we do not wish traps to stink we must constantly renew the water they contain. This is done during the day by the constant discharge of fresh water and slops through the trap. During the night the same thing might be effected by allowing a small stream of water to constantly flow into the trap. Complaints of smelling drains are most often made in dry weather. It is possible (we do not know) that the late Belgravian nuisance was due to a similar cause.

The great fault in Perry's-place was the want of proper ventilation. The court had only one opening into it, and the cottages had no windows or ventilation of any kind at the back. In the hot weather such dwellings must be particularly unhealthy and close. As far as we could learn there were about six inhabitants to each cottage. There was much here, no doubt, which was very susceptible of improvement; but when compared with the dreary, dirty old houses in Soho, such dwellings appear to advantage. The inhabitants here were all within easy reach of the water-tap and the sink, and if they were not cleanly it was their own fault. The ventilation, however, was thoroughly bad.

Salutation-place is a row of small three-roomed cottages, which are built back to back. Here, again, there is no through ventilation; and this seems to us to be the chief evil which needs remedying in this district. In one of the cottages we found the rooms averaging 10 ft. square and 8 ft. high—800 cubic feet of space. In this cottage there were nine inhabitants (adult and children) to the three rooms. This gives a cubic space of 267 cubic feet to each inhabitant—an allowance small enough when the impossibility of ventilation is considered. Each of these cottages has a small enclosed court in front of it, in which are situated the watercloset and cistern. The water-supply of most of these courts is obtained from a stand-pipe furnished with a waste preventer. The water-supply is continuous.

Cornwall-place is similar to Salutation-place. It consists of two rows of two-roomed cottages, without any through ventilation. The cottages are separated by a very considerable space. The court-yard is well paved. The water-supply is from a stand-pipe in the court, and all the houses have a good-sized enclosed space in front of them. This has in many cases been converted into pretty and tidy gardens; and it was quite pleasant to look at the gay flowers and to hear the cackle of the poultry which is kept by many of the inhabitants. What these courts are like in dull, damp weather in winter we cannot say; but it seemed to us almost wrong that so much space should be turned to so little advantage, for at least ten times as many persons might be accommodated on the same amount of ground if suitable dwellings, of the Peabody stamp, were erected.

Wootton-place—a court of similar character. Most of the houses have, we are told, no through ventilation, although this was not the case with the one into which we went. The stand-pipe in the court was broken, and could not be used. This had been caused by "the boys playing with it," and we may note in passing that one of the great difficulties in the way of providing a constant supply by means of stand-pipes is the impossibility of keeping the taps out of reach of the children. This stand-pipe had been broken three weeks. "Have you any other water supply?" we inquired of a woman standing at her door. "Oh yes, there was a butt over the closet in the back yard, but it was so full of flies, they were afraid to drink it." This water-butt was certainly a sanitary curiosity. It was placed over the closet, and was out of the reach of those who will give themselves no trouble, even for their own convenience. Climbing to the roof we found that the butt had no cover, and on probing it with a walking-stick we hooked out—(1) a child's chemise; (2) an old bit of ragged muslin; (3) an old beer-can; and on stirring it up the water became turbid from the amount of suspended matter. A bottle of it which we took away has been subjected to microscopic examination, and was found to contain a perfect museum of "creeping things innumerable," and vegetable products as well. We do not imagine that our examination was anything approaching to an exhaustive one, but we found fine specimens of cotton, wool, hair, and human epithelium, water-fleas, paramœcia, Synedra ulna, Anguillula fluviatilis, confervoid filaments, mycelium, and spores of fungus, and very many other curiosities that we have not been able to christen.

Windmill-row was like the other courts we have described, but chiefly remarkable for the very bad state of repair into which it had fallen. It was a complaint that the people living in the upper rooms were not able to wash the floor because the water fell through the ceiling into the rooms beneath. The floors, ceilings, and walls were all out of repair in the two cottages we visited. The rent appeared to be generally five shillings for the whole, and half-a-crown for the half of a four-roomed cottage.

There are some parts of London in which a fire or an earthquake would be highly beneficial, and in our humble judgment Windmill-row is one of those parts.

In the Blackfriars-road, standing on the site of the old Magdalen Hospital, is a group of Peabody-buildings, over which the superintendent very kindly conducted us. The group originally consisted of seventeen blocks of buildings, which have lately been increased to nineteen. The nineteen blocks stand upon about three acres of ground. In the seventeen original blocks live 320 families, numbering about 1200 persons. The inhabitants of the two new blocks will probably bring the total number up to 1350. Now here we have a state of crowding equalling, if it does not excel, the crowding in Soho, but none of the evil effects of crowding are here noticeable, and these blocks of dwellings certainly teach us how we may economise space. The tenements vary in size from one room to three rooms, and in rental from 2*s.* a week to 5*s.* 3*d.*, which is the maximum. The stone staircases to the several blocks are all thoroughly ventilated, and were scrupulously clean. Each tenement has a neat green door, with a brass knocker. There is a water-closet and sink to every three tenements, and on every landing there is a shoot for the dust. Every tenement has also a coal-bunker, which is made to close, and, when shut, serves as a table. The walls of the rooms are cemented and lime-whitened. They are not allowed to be papered, which is certainly a wise regulation; but if the inhabitants of the rooms wish it, they can, on payment of the very trifling cost, be furnished with a little colour to put in the whitewash. Ventilating bricks are inserted into all the walls of the rooms, but the ventilators have been almost uniformly pasted up with paper, the inhabitants being unable to stand the draught.

A great feature of the Peabody Buildings is the laundry, to which all the inhabitants have access. The office is open all day, and application is made on the evening of one day for a ticket for the laundry on the next. The ticket entitles the possessor to the use of a definite copper and a definite trough, so that there can be no quarrelling about places. The washers have to provide their own firing for heating the copper. An excellent wringing machine is provided in every laundry, so that one of the greatest labours of the laundress is abolished. There are also many first-rate drying rooms.

This particular group of buildings pays, we are told, 4 per cent.; and in it the poor live cheaply, comfortably, and, above all, wholesomely. The condition of the dwelling has undoubtedly a great moral influence on the dwellers; and the appearance and demeanour of the inhabitants of these buildings offered a remarkable contrast to that of the inhabitants of Soho and other crowded localities, who were many of them earning higher wages and paying higher rents.

VACCINATION IN THE BOMBAY PRESIDENCY.

A BLUEBOOK, purporting to be a Report on Vaccination throughout the Bombay Presidency and Sind for the year 1872–73, has lately been published by the Bombay Government, and from it we gather that the greatest discovery known in the history of preventive medicine has been making steady and safe progress in the Western Presidency of our vast Eastern Empire.

The administration of the vaccine department is entrusted to a separate set of officers selected for this duty from the general medical department, to which they nearly all belong, and to the head of which they are subordinate. They consist of a superintendent-general, with six European commissioned officers, and two native uncovenanted medical officers, the one a Parsee and the other a Hindoo, who perform the duties of superintendents. These are all almost exclusively devoted to vaccination duties, while there are yet two others who superintend vaccination in conjunction with other duties. To distribute this administrative force it appears the whole presidency is divided into circles, and to the administrative charge of each a superintendent is posted, while the general supervision &c. of the whole is entrusted to the superintendent-general, under the authority of the chief of the medical department, who in all matters is the medium of communication with the Government. Each superintendent has under his immediate control a number of assistant-superintendents, greater or less, according to the size of his circle, and these, who have in most instances been vaccinators themselves, and promoted for previous good work, aid him in the general supervision of the vaccinators. This may appear to be pushing supervision to the extreme, but when it is remembered that the vaccinators are merely men who are trained to this practice alone, and that their pay ranges from 14 rupees (£1 8*s.*) to 24 rupees (£2 8*s.*) per mensem, it will be easily understood how essentially necessary it is that the purity of their

lymph and the faith of their returns should be frequently and closely tested. The total number of vaccinators employed during the year was 373, and the work of these men was distributed over an area of 205,252 square miles, and amongst a population numbering 21,169,452 souls. The number of persons operated on by these vaccinators was 561,876, giving an average of about 1507 to each, and the average percentage of success attained was 93.9, including both primary and revaccinations. These figures are exclusive of the operations performed at dispensaries, which, if taken into account, will give a total of 579,827 operations performed in civil life throughout the Bombay Presidency during the year ending 31st March, 1873. The total cost of this work, excluding that performed at dispensaries for which no extra expense was incurred, was, under all headings, 210,795 rupees, giving on analysis an average of about 9d. for each operation performed, or say 10d. for each successful one. The whole of this expense is not borne by imperial revenues, something more than half of it being contributed by municipalities, local funds, and native states. In fact, the only charge debitable to the imperial revenues is that for supervision. From the returns, hidden away amongst a mass of tables covering some sixty-four pages, it appears that some 27 per 1000 of the population were reached by the vaccinator during the year, which speaks highly for the energy with which the department has been worked. The numbers vaccinated amongst the principal castes comprising the population are given; but as the relative proportion which each caste bears in the total of the population is not stated, no estimate can be formed of the relative popularity the prophylactic possesses amongst them. Hindoos, however, show by far the largest numbers on the returns, being about 74·2 per cent. of the total. Next in order come the Mahomedans; then the miscellaneous or different tribes of out-castes; next, Christians; and, lastly, Parsees: the percentages of these four latter races standing at 16·4, 6·8, 0·7, and 0·3 respectively, roughly estimated. The tables show that the proportion of the sexes operated on is somewhat in favour of the males, they being 51·4 per cent. of the total, while the females stand at 48·6 per cent. The number of revaccinations performed during the year was 15,129, and in these the percentage of success obtained was 66·9. The report speaks very favourably of the growing popularity of vaccination amongst the rural population.

The Government, on the whole, seem well satisfied with the working of the department, and record their sense of the zeal and intelligence exhibited by the acting superintendent-general, Dr. Turnbull, while he has been in charge. Some of the superintendents, Drs. Butler, Cody, Robb, and Colah, are specially commended for the manner in which they administered their respective circles.

ST. THOMAS'S HOSPITAL.

ON Thursday last their Royal Highnesses the Duke and Duchess of Edinburgh visited St. Thomas's Hospital. The kitchens, wards, nursing establishment, and chapel were severally inspected. Her Royal Highness the Grand Duchess exhibited a special interest in the sick children, to some of whom she presented flowers from her bouquet. Subsequently the Duke and Duchess proceeded to the Governors' Hall, where a hearty welcome awaited them from those who had assembled to witness the distribution of prizes to the successful students of the hospital, at the hands of the Duke of Edinburgh. These proceedings were commenced by Sir Francis Hicks, who in an almost inaudible voice related to the Royal visitors a brief history of the hospital and of the renown and eminence of many of its past teachers and students. The successful students were then introduced to their Royal Highnesses by the lecturers or examiners in the particular subjects for which the prizes were awarded, and received their honours amidst the hearty cheers of their fellow-students. When the prizes had all been distributed, the dean (Dr. Peacock), in the name of the hospital staff and lecturers at the school, thanked their Royal Highnesses for having graciously consented to be present at the ceremony. This was followed by an expression of gratitude from the governors, through the treasurer, who presented to the Royal Duke a silver commemoration medal. His Royal Highness, who rose amidst loud cheering, expressed the great pleasure he had in accepting the invitation to witness the ceremony of the distribution of prizes at St. Thomas's Hospital. He congratulated the gentlemen who had gained prizes, and would ever sympathise with them in the great responsibilities they had undertaken in entering upon their profession. He thought, however, that the pleasure of receiving a prize must be greatly enhanced to them when accompanied, as on the present occasion, by the unanimous support and applause of their fellow-students. He wished to say that the Duchess of Edinburgh had had a special pleasure in taking part in the ceremony, and having now enjoyed the opportunity of observing the elegance of the building, the healthiness and airiness of the wards, and the evident comfort and happiness of those within its walls who were in reality suffering from sickness and distress, he felt sure that her Royal Highness would ever take that interest in the hospital which a wife of one of its governors should do.

CHARING CROSS HOSPITAL MEDICAL SCHOOL.

MR. BERESFORD HOPE presided at the distribution of prizes to the successful students of this School on Thursday, the 4th instant.

After a few introductory remarks by the chairman, the Dean (Mr. Hird) read the report of the School for the past year. It stated that large additions had been and were being made to the hospital, so that by the close of the present year it would contain 200 beds, which, together with the 30 beds of the Royal Westminster Ophthalmic Hospital, to which the matriculated students of the school have free access, would make a total of 230 beds available for clinical teaching. The number of students was greater than in the year previous, which showed that the efforts made by the School Committee to place Charing-cross on a level with the best schools in the metropolis had not been unappreciated. During the past year the school had lost (through resignation) the valuable services of Dr. Headland, and the vacancy thus caused had been filled by the promotion of Dr. T. Henry Green to the office of physician. The chair of Anatomy, vacated by the resignation of Mr. Barwell, had been filled by the appointment of Mr. Bellamy. Special courses of instruction had recently been established in practical surgery, comparative anatomy, aural surgery, skin diseases, electro-therapeutics, and public health.

The prizes were then distributed as follows:—

Winter Session, 1873-74.—The Llewellyn Scholarship: R. W. Jolly.—The Golding Scholarship: J. G. Blackman.—Anatomy (senior): Medal (silver), P. B. Conolly. Certificates, D. E. S. Bain, W. J. Brookes (equal).—Anatomy (junior): Medal (bronze), H. R. Whitehead. Certificate, D. Colquhoun.—Physiology (senior): Medal (silver), P. B. Conolly. Certificate: W. H. Packer.—Physiology (junior): Medal (bronze), J. L. Robertson. Certificate, A. Greenwood.—Chemistry: Medal (silver), D. Colquhoun. Certificate, A. Greenwood.—Medicine (senior): Medal (silver), C. J. Woollett.—Medicine (junior): Medal (bronze), J. A. Phillips. Certificates, J. G. Blackman, W. H. Packer.—Surgery (senior): Medal (silver), C. J. Woollett. Certificates, R. W. Jolly, G. Cheesman.—Surgery (junior): Medal (bronze), P. B. Conolly. Certificates, W. H. Packer, T. Traverse.

Summer Session, 1873.—Botany: Medal (silver), J. G. Blackman. Certificate, D. S. E. Bain.—Materia Medica: Medal (silver), J. G. Blackman. Certificates, J. A. Phillips, H. Richardson.—Midwifery: Medal (silver), C. J. Woollett.—Forensic Medicine: Medal (silver), R. W. Jolly.—Pathology: Medal (silver), R. W. Jolly. Certificate, C. J. Woollett.—Practical Chemistry: Medal (silver), J. G. Blackman. Certificate, J. A. Phillips.

The Chairman then made an address, in which he dwelt upon the importance to a medical man of a high education. "He was sure no one, in or out of that room, would gainsay that he laid claim for the medical profession that, almost disproportionately from any other, it had developed a happy empiricism into a most profound science, and he hoped that in coming ages its successes and its triumphs would be still

more extraordinary. Looking at the medical man of the present day and the medical man of the playwright and novelist of the past, the difference was stupendous. He recollected, when he was a small boy, brought up in a pleasant town in Surrey, an old gentleman in top-boots being pointed out to him as a doctor who had retired from practice, and he was told it had been that good doctor's habit, on the days when the hounds met, to go round and bleed all his patients for fear they should want him in the course of the day. No, medicine was not merely a craft, but a science, which became better or worse in the hands of the man who handled it. No man could enter the profession, if he were a man of intellect, and pursue it for a few years, without doing something to enlarge the science of which he was a votary, and it was, he hoped, impossible that any of the students whom he now addressed could be like the idle servant with his talent wrapped up in a napkin. He hoped they would make a return for what they had got that day in developing medical science for the benefit of their fellow-creatures. He would not ask them to rush into print for the mere purpose of seeing themselves in print, but if anything occurred to them which could prove useful to others, it was their duty not to let pass the opportunity of making it known. The next advice he would give them was not to undervalue their own social position. The prizes he had awarded them to-day were prizes for technical education; but however educated a man might be for technical pursuits, he could not turn his talents to account unless he had also a general and a liberal education. He did not suppose this advice was applicable to any of them—he was only speaking theoretically; but he would most strongly impress on them that the medical man of these days, if he would hold his own, must also be a highly educated gentleman in the broadest sense of the word. Putting aside the clerical profession—for it stood alone in its sacred character—there were no men who were placed in such close relationship with their fellow-men as the lawyer and the doctor, and oftentimes when the doctor stood by the bedside of his patient it became a question whether he should be a mere scientific machine or a man of feeling and susceptibility, capable of entering into questions which required some knowledge of men and things, and capable of giving counsel far in value above all the drugs in Apothecaries' Hall, when counsel at such a moment might be the turning-point of recovery. Let him urge on them, as they were medical men in the first place, that they should be gentlemen and Christians in the second place, and while they should not neglect those studies which would lead on to their own success, let them likewise improve themselves in all matters pertaining to the man of liberal education, so as to fit them to hold their proper place in this troublesome, this seething, and progressive world.

A cordial vote of thanks, proposed by Mr. Manship Norman, and seconded by Mr. Robert Few, brought the proceedings to a close.

POLLUTION OF RIVERS.

AT a public meeting held at the Society of Arts, John street, Adelphi, on Thursday last, the Right Hon. Lord Saltoun in the chair, to promote legislation in restraint of the pollution of rivers, the following resolutions were passed:—

Proposed by Sir R. R. Torrens, K.C.M.G., and seconded by F. Moggridge, Esq.,—

1. That the two Royal Commissions appointed respectively in 1865 and 1868 "to inquire into the best means of preventing the pollution of rivers," having, by their eight successive reports, fully demonstrated the horrible state of pollution, by sewage and the refuse of factories and mines, to which the great majority of the rivers of this country are subjected, and the urgent necessity, on sanitary and other grounds, of remedial legislation, this meeting is of opinion that it is the duty of Her Majesty's Government to introduce a measure to put an end to so dire an evil with as little delay as possible.

Proposed by General Scott, C.B., and seconded by Sir Joseph Bailey, Bart.,—

2. That it having been conclusively shown by the Reports of the Commissioners, and by other evidence, that the sewage of towns can be diverted from streams and rivers, and by one or other of well-known processes be disposed of without injury to the public health, and that the substances and refuse from factories and mines which now poison and pollute streams and rivers can be kept out of them, and, in many instances, be turned to commercial account, it is the opinion of this meeting that it should be made highly penal to discharge such sewage or substances and refuse into streams and rivers.

Proposed by R. Brudenell Carter, F.R.C.S., and seconded by Alfred Carpenter, M.D.,—

3. That the Legislature having already, by passing the Alkali Act of 1863 (which the present Government has just brought in a Bill to extend), the Smoke Prevention Act, and other statutes, abundantly affirmed the principle that pure air is one of the first essentials to the health of the people, and pure water being equally, and, it is believed, even more essential, if that be possible, to their health: this meeting is of opinion that there should be a law to protect to the utmost practicable extent water as well as air from pollution.

Proposed by Viscount Kirkaldie, and seconded by P. Hood, M.D.,—

4. That a deputation consisting of Lord Saltoun, Viscount Hereford, Lord Abinger, General Scott, C.B., Martin Tucker Smith, Esq., Viscount Kirkaldie, Lord Northwick, J. Moggridge, Esq., P. Hood, M.D., Alfred Carpenter, M.D., R. Brudenell Carter, F.R.C.S., Sir Robert Torrens, K.C.M.G., T. R. Hill, Esq., M.P., Sir J. R. Bailey, Bart., M.P., A. D. Berrington, Esq., R. E. Webster, Esq., Q.C., Sir John Murray, Bart., J. Willis Bund, Esq., Sir G. Campbell, Bart., with power to add to their number, be appointed to wait on the Right Hon. Benjamin Disraeli, M.P., First Lord of the Treasury, to impress upon him the necessity of legislative action being taken by the Government with as little delay as possible in a matter which so deeply affects the health and lives of a very large portion of Her Majesty's subjects.

Correspondence.

"Audi alteram partem."

THE REGISTRATION ACT.

To the Editor of THE LANCET.

SIR,—In your interesting and very useful article on Medical Certification of Causes of Death there are slight historical inaccuracies, which, though not at all affecting your argument, it may be as well at once to correct.

The Act which established a national registration of births, deaths, and marriages was passed in the year 1837, *not* 1836; and to the first Registrar-General (Mr. Lister) belongs the credit of obtaining in the same year the influence of the heads of the College of Physicians, the College of Surgeons, and the Society of Apothecaries to obtain the co-operation of the medical profession in certifying the causes of death. To Mr. Lister, also, is due the great credit of enlisting the official assistance of Dr. Farr as abstractor of the registered causes of deaths. The first of Dr. Farr's invaluable series of letters to the Registrar-General was addressed to Mr. Lister, and will be found in the first annual report (page 86), published in 1839. The "present Registrar-General" had nothing to do with the inauguration of the system, to whatever extent he may have improved it, for *his* first report is dated August, 1842, five years after the passing of the Act.

I am, Sir, yours &c.,

Cheltenham, June 8th, 1874. HENRY W. RUMSEY.

*** We, in common with Dr. Rumsey, enjoy no immunity from occasional error. He is quite wrong in his first correction. The Registration Act *was* passed in 1836, as we said; not in 1837, as he supposes. The Bill for it was introduced by Lord John Russell in the House of Commons on the 12th February, 1836; it was passed by the House of Lords on the 11th of August following, and it received the Royal assent on the 17th of that month. On the other points referred to

in his letter Dr. Rumsey is substantially accurate. What we should have said of the "present Registrar-General" was that he had sought to improve the system of medical certification of the causes of death by supplying the profession with printed forms of certificate and with a disease nomenclature, the use of which has unquestionably been of the greatest advantage.—ED. L.

THE MERCANTILE MARINE MEDICAL SERVICE.

To the Editor of THE LANCET.

SIR,—In your issue of May 23rd appeared an article on the above subject, and, as I think it misleading and very unjust to a large number of medical men, I shall be glad if you will allow me to state a few facts that have come under my own observation. My experience is almost confined to passenger ships sailing from London to the colonies, and during three voyages to Australia and one to India, I became acquainted with many ship-surgeons, chiefly employed in Messrs. Green's, Wigram's, and Devitt and Moore's vessels.

I can readily call to mind twenty-two men who were tolerably well known to me, and the immense majority made the voyage either for the sake of their health, or as a pleasant mode of spending a year or two previous to permanently settling down. Out of this number only five were apparently over thirty years of age, and two of these were delicate, and had left England to avoid the winter. Ten of the twenty-two were fellow-students of my own, and most of them prizemen. Two of these are now assistant-physicians at large London hospitals, two hold good colonial appointments, three are in large practice, and two, I am sorry to say, are dead.

I am convinced many others could give similar evidence to mine, and I trust you will allow that, in colonial ships at all events, the surgeons are not the "ruck of the profession." Doubtless there are some black sheep, but I think they are the exceptions, and usually met with in outside ships, which only occasionally carry surgeons.

As to the systematic evasion of the Passengers Act by unqualified men, I can only state that I never knew or even heard of a case within recent years.

I am, Sir, yours truly,

June, 1874. W. J. SCOTT.

*** If our correspondent will read the leading article in THE LANCET of May 23rd *carefully*, he will find that we did not, and do not, class ship-surgeons as "the ruck of the profession." We are supplied with sufficiently good information to enable us to repeat the assertion that there are now many "'experienced' surgeons afloat whose names cannot be found either in the Medical Register or in the books of any examining body in the United Kingdom."—ED. L.

TRANSMISSION OF CHOLERA.

To the Editor of THE LANCET.

SIR,—In common with A. M. D. (THE LANCET, May 19th, 1874) I observed that Sir William Gull stated, with reference to its being "a fixed and certain law," "that cholera did not descend streams, but ascended them." In May last year the cholera was at Pesth shortly after it appeared on an island in the Danube, from whence it was said to have come to Widdin. It was here in June, and went down-stream, visiting towns on both banks—notably Galatz. I ought to add that this was contrary to my experience in three former epidemics on the Danube, where I have been nine years.

I have the honour to be, Sir, your obedient servant,

H.

THE ROYAL SOCIETY.—Dr. Brunton, Mr. Prescott Hewett, and Dr. Rumsey were among the Fellows elected into the Royal Society at the annual meeting held on the 11th inst.

Obituary.

SURGEON-GENERAL DR. BEATSON, C.B.

OUR readers will learn with probably no less regret than surprise of the death of Surgeon-General Dr. Beatson, C.B., the principal medical officer of the British forces in India. Dr. Beatson was to all appearance a very healthy man, of powerful physique, and no one would have imagined that his second tour of service in India, as chief of the British Medical Service, was about to close so prematurely. The news of his death, however, reached this country by telegram, but no particulars as to the nature of his illness or cause of his decease have been yet ascertained. The post occupied by Dr. Beatson was the most lucrative and, we might almost say, responsible in the medical department, and, falling as it did to him for the second time, his appointment gave rise to a certain amount of discussion. It may seem an empty platitude to allude to the instability of all human hopes, but, for all we know, Dr. Beatson's life may have been forfeited to his too protracted residence in a tropical climate. At the time of his death Dr. Beatson was residing at Simla. The deceased officer was a man of considerable energy and ability, especially as an administrator, and his death will be a loss to the service, as well as a cause of great regret to a large number of medical and other officers and friends.

Dr. Beatson served as surgeon of the 51st Light Infantry throughout the Burmese war of 1852–53; was present, on board the steamship *Feroz*, in the action with and destruction of the stockades in the Rangoon river, and during the three days' operations ending in the capture of the great Dagon Pagoda; at the defence of Prome and repulse of the night attack. Dr. Beatson served for only a short period in Turkey and the Crimea, but he rendered very valuable assistance in organising the hospitals at Smyrna. After a tour of duty in India, as the head of the British Medical Service in that country, he became, on his return to England, the principal medical officer at Netley, where he continued until he again embarked for India, to relieve the present Director-General and to take up the duties of medical chief of H.M.'s British forces in that country.

JAMES BIRD, M.R.C.S., L.S.A.

WE regret to have to announce the death of James Bird, at his house, No. 80, Seymour-street, Portman-square. Mr. Bird was educated at St. Bartholomew's, and became M.R.C.S. Eng. in 1825, and L.S.A. in 1821. He commenced practice at Cardiff, where he became surgeon to the Royal Glamorgan L. I. Regt. Militia and to the Cardiff Dispensary. After a few years spent at Cardiff he came to London and settled in Oxford-street, but soon after removed to Orchard-street, Portman-square, where for many years he carried on a considerable practice.

For several years before the passing of the Medical Act he took an active part on behalf of the general practitioners in the conferences between the authorities of the College of Physicians, the College of Surgeons, and the Society of Apothecaries, and, in conjunction with the late Henry Ancell, was secretary to the British Medical Institution, with the late Mr. Pennington as chairman.

About eighteen years ago Mr. Bird retired from the active duties of the profession, and after a time spent in the country, returned to London and resided in Seymour-street, where he continued to see some of his old patients who had been much attached to him.

In 1867 he lost his wife. This was a blow from which he never recovered, and his failing health constantly reminded him of the irreparable loss he had sustained. He was of a sanguine temperament, and notwithstanding years of suffering, his cheerfulness and resignation continued to the last. No more affectionate husband, no more tender parent, no kinder or more generous friend, no more intellectual and genial companion than James Bird ever belonged to the medical or any other profession.

He was fond of literary pursuits, and although for the last three years he spent most of his nights in his chair, he constantly occupied his days in writing on scientific subjects

for the medical and other periodicals. He was a man of considerable mental energy and a true philanthropist, ever thinking over and inventing some plan to benefit his kind, as evinced by the several *brochures* which he has written. It was only a few weeks before his death that he wrote a little book for the use of children, entitled "Private Devotions for Girls, with Maxims and Rules of Conduct."

He suffered much from asthma and heart disease, and at last dropsy supervened. His mind continued clear almost to the last, and he was cheered and comforted by the untiring and affectionate watchfulness of his two daughters.

SAMUEL DAWSON DOWNING, L.R.C.P. LOND., M.R.C.S.

THE death of this esteemed member of the profession took place on May 28th. Mr. Downing was educated at Trinity College, Dublin, and, shortly after he qualified, settled down to the hard work of provincial practice in Birkenhead, where his skill and kindness soon gained him a wide-spread reputation. He was honorary physician to the Lying-in Hospital, medical officer of No. 2 District, Birkenhead Union, and of the new Workhouse Hospital, surgeon to H.M. reformatory ship *Clarence*, and consulting surgeon to several assurance societies. His untiring zeal for the welfare of his humblest patients made him a special favourite with the poor, and his straightforward, genial disposition won the hearts of all who knew him.

At a time when he might fairly have looked forward to reaping the rewards of a long career of usefulness, symptoms of heart disease manifested themselves. Though the form of disease he suffered from occasioned him much pain, he bore it with patience, and rarely allowed it to interfere with his daily duties. The past winter, which was followed by pleurisy, confined him to his house till death came to his release. Mr. Downing died at the early age of fifty-five, and leaves a sorrowing widow and young family to mourn his loss. His remains were followed to the grave, in the beautiful cemetery at Flaybuck-hill, by many of his professional brethren.

Medical News.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.—The following Members, having passed the required examinations for the Fellowship on the 28th, 29th, and 30th ult., were, at a meeting of the Council held on the 11th inst., duly admitted Fellows of the College:—

Adams, Josiah Oake, L.S.A., Brooke House, Clapton.
Bird, Cuthbert Hilton Golding, M.B. Lond., Elgin-crescent.
Cant, Wm. Edmund, L.R.C.P. Lond., Seamen's Hospital, Greenwich.
Rose, William, M.B. Lond., High Wycombe.
Smith, George Francis Kirby, M.B. Lond., Northampton.
Yate, Edward, L.R.C.P., Godalming, Surrey.

APOTHECARIES' HALL.—The following gentlemen passed their examination in the Science and Practice of Medicine and received certificates to practise on June 4th:—

Cree, William Edward, St. John's Park, Upper Holloway.
Rose, Charles, Cape Town.
Eygate, Brougham Robert, St. George's-in-the-East.
Stevens, Alfred Felix, Stoke Newington Green.

The following gentlemen passed their Primary Professional Examination on the same day:—

Bedolfe, Peyton Davenport, St. Thomas's Hospital.
Sykes, John Frederick Joseph, Guy's Hospital.

THE foot and mouth disease is committing serious damage in the Shaftesbury and Sturminster districts. Nearly 500 head of cattle and 300 sheep are affected.

KING'S COLLEGE HOSPITAL.—The annual festival of this institution was held on Wednesday evening, under the presidency of the Right Hon. Lord Selborne, who was supported by Lord Crewe, Mr. Monk, M.P., and about eighty or ninety gentlemen chiefly connected with the medical profession. The chairman, in proposing "Prosperity to King's College Hospital," said he had to present to the College the portrait of one of its best friends, who for thirty years had the true interests of the College and Hospital at heart—namely, Mr. Cheere, the treasurer. The toast was coupled with the health of that gentleman. Subscriptions to the amount of between £2000 and £3000 were announced in the course of the evening.

DROGHEDA ELECTION PETITION.—Judge Barry delivered his final decision in the case of the Drogheda Election Petition on the 8th inst., and came to the conclusion that, however faulty the structural arrangements of the polling stations may have been, there was no actual violation of the secrecy of the ballot, and that Dr. O'Leary had been duly elected.

BEQUESTS &c. TO MEDICAL CHARITIES.—The Baroness Mayer de Rothschild and daughter have given £500 to the London Hospital in memory of the late Baron Mayer Amschel de Rothschild, a governor of the charity; also, for the same purpose, £250 to the Jewish Convalescent Home, South Norwood; Dr. O'Reilly, of Ratoath, has given a donation of £200 towards the funds of St. Michael's Hospital, Kingston; Mr. Richard O'Callaghan, of Dublin, has bequeathed £100 to the Mater Misericordiæ Hospital; and the late Mr. William Wight has left £50 to the City of Dublin Hospital, and a similar amount to the Hospital for Incurables.

HOSPITAL SUNDAY, JUNE 14th.—We are authorised to state that "Hospital Sunday" collections will be made on Sunday next at her Majesty's Chapel Royal, St. James's Palace. The Dean of Westminster has invited the attendance of the Lord High Steward, the High Bailiff, and the members of the Corporation of the City of Westminster at the special afternoon service at the Abbey on Sunday. Entrance will be at the west door a few minutes before three o'clock. Collections will be made in the Temple Church. On the corresponding Sunday of last year, the Temple Church offertory amounted to nearly £400. It is expected that the Master of the Temple (Dr. Vaughan) may be able to resume his place in the pulpit next Sunday, after his late severe illness. Dr. Parker, of the City Temple, has promised his co-operation on that day. The Lord Mayor and Lady Mayoress, accompanied by members of the Court of Aldermen in their robes, will attend morning service at St. Paul's. The Lord Mayor will also attend Westminster Abbey in the afternoon. The name of Lord Codogan has lately been added to the list of the council.

Medical Appointments.

APPLEYARD, J., M.B., F.R.C.S.E., L.R.C.P.L., has been appointed House-Surgeon to the Wolverhampton and Staffordshire General Hospital, vice Ravenhill, resigned.

ATKINS, LOUISA, M.D., has been appointed Non-resident Medical Officer and Secretary to the Birmingham and Midland Hospital for Women.

BARTON, S. J., M.B., has been appointed Medical Officer for the No. 2 District of the Aylsham Union, Norfolk, vice Prangley, resigned.

BINDLEY, P. H., M.B., M.R.C.S.E., has been appointed Resident Registrar and Pathologist at the General Hospital, Birmingham, vice Carter, appointed Resident Medical Officer.

CAMPBELL, W. MAC FIE, M.D., has been appointed an Hon. Medical Officer to the South Dispensary, Liverpool.

DIXON, J. F., L.R.C.P.L., M.R.C.S.E., has been appointed Assistant Medical Officer to the Leicestershire and Rutlandshire Lunatic Asylum, near Leicester, vice Bowes, resigned.

DUFF, Dr., has been appointed Resident Assistant Medical Officer at the Oxfordshire and Berkshire Lunatic Asylum, Littlemore, vice Hoysted, resigned.

ELLIS, W. H., M.R.C.S.E., has been appointed Medical Officer of Health for the Shipley Urban Sanitary District: £60 per annum; acreage 1400; population 12,000.

FENTON, M. A., M.D., L.R.C.S.I., has been appointed Medical Officer of Health for the Coventry Urban Sanitary District: £100 per annum; acreage 1600; population 37,670.

FIDDES, D., M.D., M.R.C.S.E., has been appointed Consulting Surgeon to the Royal Infirmary, Aberdeen, on resigning as Surgeon.

FOX, J. M., M.R.C.S.E., has been reappointed Medical Officer of Health for the Cockermouth Port, Rural and Urban, and Keswick Urban Sanitary Districts: £379 per annum; acreage 169,550; population 38,784.

GRIMES, J., M.D., has been appointed an Hon. Medical Officer to the South Dispensary, Liverpool.

JEPSON, E. C., F.R.C.S.E., has been appointed Medical Officer of Health for the Durham Rural Sanitary District: £200 per annum; acreage 41,351; population 37,044.

HOWIE, J. M., M.B., C.M., has been appointed an Hon. Medical Officer to the South Dispensary, Liverpool.

HUDSON, J., M.R.C.S.E., has been appointed Medical Officer for the J. O. Foresters, the Sons of Temperance, and other Benefit Societies, Bradford, Lancashire, and Medical Referee to the Prudential Assurance Company, vice Toyne, deceased.

LAIDLAW, W. G., M.D., has been appointed an Hon. Medical Officer to the Wirral Hospital and Dispensary for Children, Birkenhead, vice Bell, resigned.

LAKIN, C., L.R.C.P., L.M., L.S.A., has been appointed Medical Officer to the Millstone-lane Sick Society, also to the Samson Tent of the Independent Order of Rechabites of Leicester.

LEAH, T., M.R.C.S.E., has been appointed Medical Officer of Health for the East Stonehouse Urban Sanitary District: £50 for one year; acreage 300; population 14,800.

LOWDOTHAM, G., M.R.C.S.E., has been appointed Medical Officer for the Middlesborough North District of the Stockton Union, vice M'Cuaig, resigned.

MEREDITH, W. A., M.B., C.M., M.R.C.S.E., has been appointed Resident Medical Officer to University College Hospital, vice Bigden, whose term of office has expired.

MICKLE, G., M.B., C.M., has been appointed Junior House-Surgeon to the Newcastle-on-Tyne Infirmary, vice Rowell, appointed House-Surgeon to the Leeds Infirmary.

PALMER, C. DE MONTMORENCY, B.A., M.B., has been appointed Medical Officer to the Amalgamated Friendly Societies, Thornton, vice M'Leod Grigor, resigned.

PARKHOUSE, H., M.R.C.S.E., has been appointed House-Physician to the Westminster Hospital, vice Heale, whose appointment has expired.

PENDLETON, R. W., L.K.Q.C.P.I., L.R.C.S.I., has been appointed an Hon. Medical Officer to the South Dispensary, Liverpool.

RICKARDS, A., M.R.C.S.E., L.R.C.P.Ed., has been appointed Assistant House-Surgeon to the East Dispensary, Liverpool, vice Steele, appointed Resident Medical Officer to the Bloomsbury Dispensary.

SAUNDERS, W. S., M.D., has been appointed Medical Officer of Health and Public Analyst for the City of London: £600 per annum.

SIMPSON, W. S., M.R.C.S.E., has been appointed Medical Officer to the Pontefract Union Workhouse, vice Muscroft, resigned.

SOPER, R. W., M.R.C.S.E., has been appointed Medical Officer of Health for the Dartmouth Sub-district of the Totnes Rural Sanitary District: £2 per annum; acreage 120; population 400;—also Medical Officer for the Dartmouth District of the Totnes Union, both vice Puddicombe, resigned.

STOCKS, A. W., M.R.C.S.E., has been appointed Medical Officer to the Salford Union Workhouse, vice Ingle, resigned.

STOWEY, G. L. B., L.K.Q.C.P.I., L.R.C.S.I., has been appointed Medical Officer to the Borrisokane Union Workhouse, vice Mac Garvey, deceased.

THOMAS, W., M.D., F.R.C.S.E., has been appointed Pathologist to the Queen's Hospital, Birmingham.

TOSE, Mr. J. T. (Birmingham General Hospital), has been appointed Assistant House-Surgeon to the Royal Infirmary, Dumfries.

WRIGHT, W. E., M.R.C.S.E., has been appointed Medical Officer to the Westminster Union School at Tooting, vice Noel, resigned.

Births, Marriages, and Deaths.

BIRTHS.

HAMPSHIRE.—On the 19th of April, at Singapore, the wife of F. K. Hampshire, M.B., of a daughter.

HOBSON.—On the 7th inst., at Great Berkhampstead, the wife of W. H. Hobson, M.R.C.S.E., of a daughter.

MAC GREGOR.—On the 30th ult., at Claverton-street, South Belgravia, the wife of Dr. J. Mac Gregor, Bengal Medical Service, of a son.

NORMAN.—On the 6th inst., at Queen's-crescent, Southsea, the wife of Burford Norman, M.R.C.S.E., of a son.

SANKEY.—On the 4th inst., at Maidstone, the wife of G. Sankey, M.R.C.S.E., of a daughter.

STEWART.—On the 29th ult., at Rodney-street, Liverpool, the wife of R. E. Stewart, L.D.S. R.C.S., of a daughter.

TAPLIN.—On the 9th inst., at Lansdowne House, Coventry-road, Birmingham, the wife of J. F. Taplin, M.D., of a daughter.

WARD.—On the 9th inst., at Saltburn, Twickenham-common, the wife of Martindale C. Ward, M.D., of a son.

MARRIAGES.

HAWKINS—MAYO.—On the 4th inst., at Puddlehinton, William Hawkins, M.R.C.S.E., to Sarah Lawrence, daughter of the late Geo. Mayo, Esq.

HUBBARD—PARKIN.—On the 2nd inst., at St. Paul's, St. Leonard-on-Sea, Thos. Wells Hubbard, M.R.C.S.E., to Sarah Margaret, daughter of the Rev. Charles Parkin.

DEATHS.

DAVIES.—On the 4th inst., E. Davies, M.D., of Shooter's-hill, Deputy Inspector-General of Hospitals and Fleets, aged 68.

FERNIE.—On the 8th inst., at Wellingborough, Northamptonshire, Andrew Fernie, M.R.C.S.E., in his 70th year.

M'KENNA.—On the 3rd inst., at Lancaster-road, Notting-hill, J. M'Kenna, M.D., late Deputy Inspector-General of Hospitals, Madras, aged 75.

PHILLOTT.—On the 4th inst., J. Stevens Phillott, M.R.C.S.E., of Mortlake, aged 63.

RYAN.—On the 4th inst., at New Ross, Wm. Burke Ryan, M.D., F.R.C.S.E., of Norfolk-terrace, Bayswater, aged 64.

SEWELL.—On the 8th inst., John J. Sewell, M.R.C.S.E., of the Grand-parade, Brighton, aged 67.

VALLANCE.—On the 3rd inst., at Westbourne-park Villas, Hugh Vallance, M.D., aged 71.

[N.B.—A fee of 5s. is charged for the insertion of Notices of Births, Marriages, and Deaths.]

BOOKS ETC. RECEIVED.

Dr. Waring: Bazaar Medicines.
Mr. Orme: Science of Heat.
Mr. Aveling: Botanical Tables.
White's Latin and English Dictionary.
Parrish's Treatise on Pharmacy.
Haydn's Dictionary of Popular Medicine and Hygiene.
Five Years' Surgical Work in Manchester Royal Infirmary.
Mr. J. F. Clarke: Autobiographical Recollections of the Medical Profession.
Dr. Clay: Handbook of Obstetric Surgery.
Chambers' Cookery for Young Housewives.

Notes, Short Comments, and Answers to Correspondents.

DISEASES OF MOROCCO.

DR. GERHARD ROHLFS' recent work contains some interesting notices of the maladies peculiar to Morocco. The great physicians who once flourished there, as well as in Spain, are forgotten. No Moorish doctor knows that Albucasis, who invented lithotomy, was a countryman of his. Avenzoar, who first ventured to unite medicine and surgery, and was the originator of bronchotomy, is equally unknown. The modern Moorish doctors are respected only when they are also doctors of theology; for every disease is thought to be a judgment, for which the appropriate medicines are amulets and prayers. Dr. Rohlfs owed his own reputation in Morocco, not to his having studied medicine, nor to his having been a surgeon in the army of the Sultan, but to his having been a Christian. There are no regular apothecaries' shops. The physician himself prepares and administers his medicines. If he be unknown to the patient, or if the latter be a person of importance, the physician must taste the medicine first—must sometimes, indeed, drink half of it. This happened to Dr. Rohlfs when he prescribed a dose of salts to the Pasha of Fez. Syphilis is the commonest of all diseases in Morocco. Scarcely a family north of that country but is tainted with the disease. The Moors call it the great sickness, or the woman's sickness. The remedies in most repute among them are the hot sulphur-springs of Ain-Sidi-Yussup, the water being almost at boiling heat. Some patients take these baths for a year, while the shortest time is three months. They camp round the baths, a weekly market being held. Dr. Rohlfs found some remarkable cures from this treatment; while mercury is seldom used, and only in the towns. Sarsaparilla is also in vogue; but the Moors rely chiefly on change of air, of diet, and on sweatings, and these sometimes prove beneficial. Intermittent fevers prevail in the lowlands along the river-banks, and in marshy plains all the year round. It usually takes the tertian form, sometimes the quartan, and those who have once been attacked seldom get rid of the disease. Quinine, except at the sea-ports, is unknown, and the popular remedy is a drastic purge. Liver complaints and yellow jaundice are common, and are treated with *Cuminum cyminum* (Linnæus). For diarrhœa and dysentery the medicines are gum arabic, a decoction of *Capparis spinosa*, and raw opium. Dyspepsia, rheumatism, and gout are treated with the actual cautery, in spite of its torture, and Dr. Rohlfs gives a curious description of the "fire-doctors" and their ways. Diseases of the lungs are scarcely known in Morocco, and are treated only with amulets. Dropsy is common, partly due to suppressed perspiration, partly due to the immoderate use of hot-baths in the towns. Purges are administered for it, but not diuretics. Typhus fever is rare, and hydrophobia unknown; while small-pox prevails, and, in a less degree, leprosy and elephantiasis. Scabies is common, and ringworm attacks all boys, and dies out of itself in their twentieth year. Diseases of the eye are of very frequent occurrence, the cornea being oftenest affected. The remedies are of the rudest kind, and seldom succeed. Cataract is more skilfully treated, surgery being much more advanced in Morocco than medicine. Wounds and fractures are also treated in a very rational way; but amputation, which the Moors regard as sinful, is never practised. Midwifery is practised by women only. In a small oasis of the desert, Dr. Rohlfs' hostess brought forth a child in the night, and cooked his breakfast for him in the morning!

Mr. Abuth, (Sunderland.)—The communication has been received.

THE WEBB FUND.

THE following contributions have been received by Mr. Augustus Churchill, the Treasurer, to the 10th inst.:—

J. N.	£5	0	0	Mr. Lloyd Bullock	£1	1	0
Mr. W. H. Grimston ...	10	10	0	Mr. H. H. Massey	1	1	0
Dr. Meadows	2	2	0	Dr. F. R. Hogg	1	1	0
Rev. Thomas Wm. Webb...	100	0	0		150	8	0
Mrs. Harper	0	10	0				
Professor Flower	3	3	0	Amount previously acknowledged	1879	1	6
Dr. W. E. Wright, Madras	5	0	0				
Dr. Richard Quain	10	10	0				
Mr. Prescott Hewett... ...	10	10	0	Total	£2029	9	6

*** This Fund will be closed on the 27th inst.

NEWCASTLE-ON-TYNE.

WE hope next week to notice the Report of the Medical Officer of Health on the Sanitary Condition &c. of this town for 1873.

Eczema.—The island of St. Michael, in the Azores, possesses hot mineral springs, which have been useful in this disease as well as in rheumatism. The advantages of residence there are becoming known, and visitors from Europe are now so many that a good field for the practitioner is opened up in those charming islands.

Mr. Frank T. Paul.—Thanks. We should be glad to receive the information.

An Intending Candidate.—There will be a competitive examination for the medical branches of the different public services in August next, to be held at London University as usual.

THE VALUE OF EUROPEAN LIFE IN INDIA.

MR. G. W. KELLNER, who has subscribed the statistics of the Uncovenanted Service Family Pension Fund to a careful scrutiny, has given the result of his examination in the Thirty-sixth Report of the Fund. The *Indian Medical Gazette* for May 1st contains a long extract from Mr. Kellner's speech at the last general meeting of subscribers. From this we learn that the actual rate of mortality was, no doubt, lower than the computed rate, but considerably higher than the rate of mortality in England. The uncovenanted servants of Government were required to produce certificates of sound health as an indispensable condition of membership in the Pension Fund; yet the actual mortality amongst these members during a period of nearly forty years was found to be nearly double the rate of mortality experienced by Life Assurance Companies in the United Kingdom. We take it that this testimony is very decidedly in favour of the view maintained by us, in opposition to that advanced by Dr. F. Mount, as to the relative value of European life in India.

A Sanitarian.—Our correspondent is wrong in his estimate of the amount of water required for the purpose. If the drains be properly constructed, and of no more than the requisite size, the amount of water required for efficient flushing need not be "enormous."

Messrs. Mackechnie and Stewart.—The work has not yet been received.

THE NAVAL MEDICAL SERVICE.

To the Editor of THE LANCET.

SIR,—The medical branch of the navy are rejoicing that the leading medical journal is standing forward to vindicate justice to their class. Your notice of the case of Deputy Inspector-General Donnett, who has been put on half pay after much good service, has the ring of the true metal about it; but the poor apology for that of which you complain that appeared next morning in the columns of a weekly contemporary, the *Army and Navy Gazette*, does, I think, merit a reply, or, as far as it circulates, it may convey the idea that you have gone beyond the mark in your statement of facts. The one-sided view herein taken is evidenced in the phrase, "a popular service," as applied to the Naval Medical Department, being entirely at variance with the admission of the First Lord of the Admiralty, who views the opposite condition with undissembled concern. Although truth may be bottled up until by some chance or accident the vessel receives a blow too heavy for its continuity, yet then the truth leaks out. In this case the blow has been the unexpected renewal of the chief appointment of the department. It has come upon us when nine-tenths of the service looked for a promised change; and, as at the same moment it has happened that a meritorious officer has been dealt with so very differently, your observations have fallen most opportunely, as exhibiting the *methodus medendi* the authorities use to our tender spots, and showing also how the Admiralty make fowl of one and fish of another. Thus a lucky officer with Court support, under whose *régime* the service has fallen into its present rut, which Mr. Ward Hunt has deplored before Parliament, has renewal of place for another five years, although he is a retired officer. To effect this an established rule has been disregarded. At the same time an officer on the active list, whose career has been without reproach, is ruthlessly cast on half pay, after three years' service, on the plea that the rule of the service above noted must not be set at nought. With such facts in view, is it strange that men rejoice when they notice your vindication of justice? and is it not well that they should look around for their friends, while they ventilate the totally unprincipled manner in which our professional affairs are administered?—for it is only by such ventilation that right and truth will be asserted.

I enclose my card, and remain one of your grateful readers,

June, 1874. NEMO.

To the Editor of THE LANCET.

SIR,—The Navy List for June exhibits a deficiency of no less than thirty-seven surgeons! How is it that the first service in the world has become so discredited that, although there are so many vacancies, one man only has had courage enough to enter in 1874? The causes, indeed, are not difficult to find. Besides the ever-increasing *disagréments* of a sea life in submerged and dangerous iron-clads, the Navy List itself tells a woful tale. It intimates plainly enough that no step in rank can be gained under thirteen years, and, when that is attained, the aspirant must vegetate on half pay for a couple of years or so, or continue to do duty with his new rank in the same subordinate position he has filled for thirteen years already. When he becomes a senior staff surgeon after twenty years' service, he will find that he cannot retire as in the army; that he cannot attain the rank of deputy inspector, the list of these being a stagnant pool from which there is no outlet; and that, grey-haired and spectacled, he must continue to brave a sea life amongst youthful and now uncongenial messmates, his *quondam* companions having long passed into the captains' and admirals' lists.

The remedies for all this are obvious enough; but I fear it requires the influence of the press to compel or persuade those in authority to set aside their prejudices. *Promotions must be made quicker by earlier retirements, with sufficient inducements for the seniors on the various lists to retire.* The three principles expressed in this sentence strike at the root of the chief grievances complained of by medical officers. Optional retirement for all ranks under that of deputy inspector at forty-five years of age, with twenty or twenty-one years' service, is a matter of urgent necessity, leaving those who find themselves able to cope with no imaginary difficulties to continue. For these there ought either to be promotion or a retiring allowance equal to any other civilian officer, which is not allowed at present.

The numbers of inspectors and deputy inspectors ought not to be so restricted as they now are. There are several appointments held by staff surgeons which might be more appropriately held by a deputy inspector, and there are at least two which ought to be held by an inspector in place of a deputy—namely, Malta and Melville Hospital, Chatham. A list of five inspectors and fifteen deputy inspectors are none too many for the wants of the service, instead of sixteen of both ranks as at present. Even if some of them must be on half pay, most men would prefer the half pay of the inspectoral ranks to that of staff surgeons, of whom there are generally some fifty or more unemployed.

But there must also be some inducement held out to the inspectors and deputy inspectors to retire. At present they are not allowed to do so under sixty, and then only on their half pay; while all other ranks and classes in the service have a very considerable increase on their retirement after a certain age. In justice to them and to their expectant juniors, they should be allowed to go at an earlier period, with an allowance proportioned to their rank.

I am, Sir, your obedient servant,

June 3rd, 1874. SERVED.

To the Editor of THE LANCET.

SIR,—Notwithstanding the complaints of the medical officers of the army, had the navy been administered by the Horse Guards, an inspector of hospitals (surgeon-general) would have been appointed as principal medical officer to the Mediterranean, another to the West Indies, a third to China, each of which are Vice-Admiral's commands with a large naval force.

Had the navy been administered by the Horse Guards, a deputy inspector-general (deputy surgeon-general) would have been appointed to the Cape of Good Hope, to the Pacific, and to the East Indies, also to the Channel and Flying Squadrons as principal medical officers; while a staff surgeon at least, with extra pay, would have been sent in the same capacity to the Commodore's ships in Australia and on the South-East Coast of America.

Had the navy been administered by the Horse Guards, there would have been at least one inspector of hospitals on the coast of Ireland; while the chief medical officers at Haslar, Plymouth, and Melville would have been P.M.O.'s of the respective stations of Portsmouth, Plymouth, and the Nore, with extra allowances as such.

Had the navy been administered by the Horse Guards, the doctors would probably always have been on full pay; when capable of serving, would have been allowed to retire after twenty years' service; would have received extra pay for any duty out of mere peace routine; would certainly not have got forage allowances!

Thus, Sir, although a Commission laboriously tried to equalise the two services, we have the navy deprived of promotion to at least four inspectorships and of five deputy inspectorships, and of various other honours and emoluments according to the army. And yet the same Treasury pays for both, the same Parliament votes the supplies, and the same grateful country approves! Let no aspiring candidate, therefore, suppose that he may enter either service with the same prospect of attaining status and advancement.

The medical officers of the navy have much reason to thank THE LANCET for its continued and strenuous advocacy, which may yet prove as effectual as hitherto.

I am, Sir, yours &c.,

June, 1874. VINDEX.

An Old F.R.C.S.—We presume the Hon. Secretaries are directly responsible for the selection; but we fancy a good deal of back-stair influence is sometimes brought to bear through a well-known busy official.

E. P.—Consult a solicitor. The insertion of our correspondent's letter might render us liable to an action for libel.

Dr. Reginald Pierson (Dresden) is thanked for his courteous communication.

A CASE OF DISTRESS.

To the Editor of THE LANCET.

SIR,—A notice of the case to which the enclosed refers was kindly admitted into some of the journals a short time since; but, owing to some insufficiency of explanation on the part of the writer, his statement appeared as if relating to another party known to Mr. Carey, whereas that gentleman is unfortunately himself the sufferer alluded to. Will you permit me to say that, at the request of the Committee of the British Medical Benevolent Fund, I have visited Mr. Carey, and am able to bear strong testimony to the deplorable nature of his case; and I will venture to add that if you can confer on him the great service of giving insertion to his appeal, it will be an act of the most considerate and real kindness.

I am, Sir, your faithful servant,

CHARLES S. WEBBER, F.R.C.S.,
Hon. Sec. British Medical Benevolent Fund.

Upper Berkeley-street West, June 9th, 1874.

An appeal is earnestly made on behalf of a medical man, Mr. S. Orby Carey, who is suffering from paralysis. Obliged, after years of laborious work in South Australia, to give up his practice ere he could make provision for a time of need, and to return to England for treatment, he now lies in humble lodgings, suffering much both mentally and physically, and wholly dependent on charity. He has no relatives able to assist him, or even to offer him a home, and, from years of absence, but few friends. His family, a wife and three children, are temporarily provided for. He, therefore, only asks that assistance may be given that he may be enabled to continue treatment. This further appeal is made with the desire that he may be able to decide whether he can arrange for another year's treatment, failing which he will be obliged to accept an offer now made of a free passage back to the colony, when he feels all chance of recovery would be lost, and no ultimate prospect remain but that of ending his days in the destitute asylum there.

Reference permitted to B. E. Brodhurst, F.R.C.S., 20, Grosvenor-street, W.; and to F. J. Toulmin, F.R.C.S., 36, Thurloe-square, S.W. Subscriptions received by Calvert Toulmin, Esq., 69, Inverness-terrace, Hyde-park, W.; by Dr. Gelston, Limerick; by Dr. Hobart, Cork; or by Mr. Carey himself, 12, Sheldon-street, Paddington, W.

Amounts already received.

British Medical Benevolent Fund	£20	0	0
Irish Medical Benevolent Fund	15	0	0
Anonymously and otherwise (acknowledged)	17	17	0

The Author of the Orcades will find in Dean Milman's celebrated review of the "Arundines Cami" (*Quarterly Review* for March, 1841, we think) some remarks on Latin versification, which he would do well to study. That portion of the article which criticises the late Sir Henry Halford's "Nugæ Metricæ" deserves his particular attention.

A Subscriber.—It is difficult to give an opinion in the case. We would suggest a consultation.

MAKING SHORT PEOPLE TALL.

CAN a man by taking thought add a cubit to his stature? A case was tried before the Marylebone Police Court the other day, in which the defendant appears to make a profession of the operation. Pills, the composition of which is not stated, were prescribed by him, along with the recommendation to keep the skin open, to avoid carrying heavy weights on the shoulders or head, to abstain from smoking and drinking, to walk erect, and so forth. His client did not benefit in the least by the regimen, and the pills cost her eleven shillings. *Bium tenuatis?* But, after all, it is lamentable to think that the most elementary knowledge of the human frame and its functions should be such a rarity, and that mothers and heads of families should continue to discharge their important duties in a state of ignorance as dense as that of the Huron or the Hottentot.

Dr. C. Bell Taylor's paper shall shortly be published.

PORTSEA ISLAND MEDICAL PROVIDENT INSTITUTION.

To the Editor of THE LANCET.

SIR,—Permit me to reply to the remarks contained in THE LANCET of last Saturday about this institution,—remarks which, I must admit, are not strictly in accordance with that fairness and accuracy for which your journal is famed.

In the first place, there is at present no necessity for more than one medical officer who is not honorary, there being only about two hundred members, and not more than four or five cases to attend to daily. This is due to the fact of the scheme having only been started in February last.

You say that "the charges of threepence per month and seven shillings and sixpence for midwifery cases are sums not calculated to raise medical service in public estimation," and that "the one medical officer who sees the patients does so on terms which underbid all respectable Club practice, to say nothing of private practice". Allow me, Sir, to inform you that there is an institution in this town, called the Dockyard Medical Club, which numbers upwards of eight thousand members, and pays only twopence per month for each member for medical attendance and medicine; that there is another Club numbering over eleven hundred members, and paying only threepence, and that the appointment of medical officer to this Club was held until recently by a gentleman of local eminence, who was also a magistrate for the borough; that in the Coventry Provident Dispensary the average charge is not more than threepence; that the average charge at the Royal Victoria Provident Dispensary at Northampton is considerably less than threepence, as is also the case in a great many provident medical institutions throughout the country. Besides, on reference to the rules which are suggested by the Medical Sub-committee of the Charity Organisation Society, and approved by the Council of the Society, I find the following scale of payments is suggested: "A. Adults over eighteen: town, per month, sixpence; country, per month, fourpence. B. Young persons, fourteen to eighteen: town, per month, fourpence; country, fourpence. C. Married couple: tenpence in town per month, and eightpence in the country. D. Children under fourteen, twopence per month in town and country. Not more than four children under fourteen years of age are to be charged for in any one family. Any others under that age are to be free." So that if that scale of charges were adopted in this institution we should find the average sum paid would be under threepence, as children under fourteen are in a large majority. The midwifery fee is low I must admit; but it was proposed by one of the Committee, whose object I believe was to discourage as much as possible the practice of midwifery by unqualified persons. It is, however, the same as at Northampton. We find also in those institutions where the midwifery fee is half a guinea or fifteen shillings that the women do not always avail themselves of the advantages the institution offers in this respect, but employ midwives.

You say: "The circular states that the institution is under the management of a Committee, but the names of the gentlemen composing the Committee are not given"; and, further on, that "this scheme differs but little, in our opinion, from those cases in which a single man constitutes an institution." These remarks appear to cast some degree of doubt on the truthfulness of the statement of the circular, and represent the gentlemen whose names appear thereon as being involved in the falsehood. Permit me to say, Sir, that the circular is perfectly correct in this particular, and that amongst the Committee are two of our town councillors, a solicitor, and an editor of one of our local papers, in which papers reports of our last Committee meeting appeared. The only reason I can assign for the names of the gentlemen composing the Committee not appearing is, that it was thought at the time the circular was printed that the poor class of persons amongst whom it would be circulated would care not so much to learn the names of those gentlemen as they would the names of the medical officers and the advantages of the institution. Had it been supposed, however, that the circular would have been exposed to the scathing criticism of THE LANCET, such an omission would not have been made.

I am afraid your correspondent, whose letter or name does not appear, who assures you that medical men in the town complain of a falling-off in the number of their midwifery cases, must find some other reason for this diminution of their practice than the existence of this institution, as the number of cases already attended does not amount to half a dozen, and that in each of these cases a midwife had previously been employed, and would have been again.

You presume that the object in giving the parents a pamphlet on the management of babies is to induce the parents to enter their children. If such were the object it has most signally failed, as the parents scarcely ever exhibit any desire to be taught that farinaceous food is not good for infants a week old, and that cleanliness and ventilation are necessary adjuncts to health; they reluctantly accept the pamphlet, seldom read it, less often adopt the rules therein laid down, and nearly always give it to one of the children to play with. However, it was thought that in a town where half the number of deaths registered were those of children under five years of age, some reason for that large mortality might be found in the prevailing ignorance as to the proper management of young children, and that the Rules for the General Management of Infants recommended by the Obstetrical Society of London might effect an improvement.

I remain yours faithfully,
SAMUEL STOCKLAND,
Medical Officer to the Institution.

Landport, Portsmouth, June 9th, 1874.

FOOD FOR INFANTS.

Apropos of the recent evidence as to the chemical value, or rather valueless nature, of the foods advertised for infants, the *Standard*, alluding to the enormous amount of starch contained in these diets, says it is identical with the material used for stiffening our shirts and collars, and has probably by this time stiffened out a good many infants!

Stagirite.—The series of papers in our contemporary, *Iron*, entitled "Travels in Quest of Science" will be found, from their fulness of detail and illustrative reference, as well as from their clearness and vivacity of style, to answer our correspondent's purpose.

Mr. Haslewood.—We do not know of any work. The remaining part of the letter shall be kept in mind.

Dr. Barclay, (Leicester.)—The lig. ferri perchlor.

DEATH FOLLOWING INJURY TO THE PELVIS.

To the Editor of THE LANCET.

SIR,—The following case of fatal embolism following obscure pelvic injury lately occurred in my practice, and I think may prove interesting to some of your readers.

A gentleman, aged forty-one, in tolerably good health, although not robust, was thrown from a high dog-cart on April 6th. He was sitting on the near side, but fell over the off side, being thrown beyond his friend who was driving. The horse was running away down a steep hill, and in turning a corner sharply both were thrown violently, the cart then righting itself. He was unable to say certainly how he fell, but fancied he came down first upon his right side, and then rolled over. He had some slight bruises about the right side of the face and left shoulder and elbow, and complained of pain in the left hip and left side of the perineum, and inability to move the left leg.

On examination, there was no bruising about the hip-joint, and no alteration in the shape or length of the limb, which could be flexed, extended, and rotated outwards without giving the slightest suffering; but rotation inwards caused pain, and he was quite unable to move it in any direction himself. Pressing the femur upwards against the pelvis was comfortable to him; but firm pressure deep in the iliac fossa caused some little pain. There was some numbness about the limb, and it was rather colder than the other. From the first the urine was clear, and passed freely and easily, and the bowels acted without any pain whatever. The case appeared to be one of sprain of some muscle about the hip-joint, with perhaps rupture of some fibres, and the one the symptoms seemed particularly to point to was the obturator internus. The pain about the hip and perineum was sometimes very severe, necessitating my giving him hypodermic injections of morphia; and he had a severe bilious attack, which somewhat threw him back, but he gradually recovered power in the limb, being able to draw it up in bed and turn it outwards, and after a time inwards to a limited extent. At the end of a fortnight, the foot being supported by webbing round the neck, he could get about on crutches, and seemed doing well.

On Saturday, May 2nd, the patient went out for a drive in an easy carriage preparatory to going to his own home, about twenty miles distant (the accident happened while staying with a friend of his in this neighbourhood), on the following Monday. I saw him in the morning (Sunday, May 3rd) in bed. He said he felt rather tired from his drive on the day before, and that it seemed to shake him rather, so he should keep quiet, but felt very well. About 5.30 he ate a very good dinner, sitting up in his room, which he had not left that day; but about an hour afterwards, being then back in bed, he suddenly complained of intense pain in the *right* groin. I saw him about 9 P.M. He was then faint and sick; the pain in the groin still severe, nothing abnormal to be felt there, and the limb bluish, cold, and swollen, although less so, I was told, than it was two hours previously. I gave him stimulants, and bandaged the limb in cotton-wool. He rallied from his faintness, and the limb became much warmer. I injected some morphia into the arm, as his pain was still very great, and left him about 11.30 P.M., as he said, very comfortable. I was hurriedly sent for again about 4 A.M. on Monday, May 4th, but before my arrival he was dead. His wife told me that after I left he seemed very comfortable, dozing for half an hour or so at a time, and at 3 A.M. told her he was so well again that she had better go to bed; but about 4 he suddenly called out that he was in great pain in his chest, and asked her to come and rub it, and died in a few minutes.

No post-mortem examination was obtained, and therefore the case is incomplete; but it appears to me probable that from the injury a clot formed in some pelvic vein, and that the shaking of the drive, thirty-six hours before his death, dislodged it, and it then first plugged temporarily the external iliac, and ultimately the pulmonary artery. I should add that the patient had no cardiac murmur.

I am, Sir, yours truly,
Sevenoaks, June 2nd, 1874. C. D. PEARLESS, M.R.C.S., &c.

THE *Academy* of last week contained a paragraph to the following effect, extracted from the *Spenersche Zeitung*, which, with an eye to possible contingencies, has with grim facetiousness inserted in its feuilleton a specimen of the cremation announcements, which in Germany doctors generally, and in this country Sir Henry Thompson specially, no doubt anticipate will be of ordinary occurrence among the coming race. The sample announcement is as follows:—"To-morrow at 3 P.M. I shall burn my mother-in-law."

Mr. William Dougall, (Edinburgh.)—Thanks. Our correspondent will notice that the subject has received attention.

THE ELECTION AT THE EPSOM COLLEGE.

To the Editor of THE LANCET.

SIR,—I hope you will allow space in your columns to very sincerely thank you and all those who have so kindly and so effectually helped to secure the election of my son, Hugh C. Webb, to a Foundation Scholarship of the Royal Epsom College. It is a great gain to him to have thus been successful in his first application, and to me to have been spared the delay, anxiety, and expense of a longer canvass. I am very grateful for this, as also for many other proofs of the high regard and esteem in which my dear husband was held.

I am, Sir, yours very truly,
Woburn-place, June 6th 1874. SARAH S. WEBB.

Mr. Emanuel Braithwaite, (College of Medicine, Newcastle-on-Tyne.)—The sessions at the Paris medical schools begin in November, and last six months. A few lectures are delivered at the Faculty in the summer. Clinical teaching is carried on by Professors of the Faculty at the Hôtel Dieu, Charité, and Pitié in the winter. The London examining boards will admit gentlemen with foreign diplomas to examination when the requisite number of lectures can be proved.

M. Millard.—Consult a surgeon.

Y. P.—We fear the insertion of our correspondent's complaint would bring us within the meshes of the law.

A. G.—Very soon.

A "HEAVY" SUFFERER.

To the Editor of THE LANCET.

SIR,—Perhaps the notes of the enclosed case may be of interest to some of your readers.

Mary L——, a widow, aged sixty-eight, of healthy appearance, but suffering from articular rheumatism and slight paralysis, relates the following singular history, furnishing an account of a series of fractures seldom met with in the same individual:—When about fifty years of age, while carrying a pail of water, she fell and received a fracture of skull, a compound fracture of left forearm, a dislocation of right hip, and fracture of four ribs (side uncertain). Some years afterwards, falling off a ladder, she broke three of her ribs on the right side. Her third fall resulted in fracture of femur in two places, and two broken ribs. Not long after this she fell a fourth time, fracturing her leg (right) in two places and three of her ribs, and dislocating her right shoulder. Since this she has met with two accidents, both resulting in dislocation of the same shoulder. She describes herself as having always been a "heavy woman," and appears to have suffered from partial paralysis of the right side consequent on the first fall. This may in some measure account for the majority of injuries occurring on the right side. The annexed table shows at a glance the number of fractures &c.

No. of Accident.		Fractures.		Dislocations.
1	.....	6	.....	1
2	.....	3	.....	0
3	.....	4	.....	0
4	.....	5	.....	1
5	.....	0	.....	1
6	.....	0	.....	1
Total	...	18		4

Your obedient servant,

Marsham-street, June 6th, 1874. THOMAS P. MORGAN.

ERRATUM.—In THE LANCET for May 30th, page 773, col. 2, line 5, for ascents made by Glaisher and Cox, read Glaisher and Coxwell.

COMMUNICATIONS, LETTERS, &c., have been received from—Prof. Parkes, Netley; The Duke of Westminster; Mr. T. Holmes, London; Dr. Ramsey, Cheltenham; Mr. Berkeley Hill, London; Dr. Bell Taylor, Nottingham; Mr. Tomes, London; Mr. Holm, London; Miss Emily Faithfull, London; Dr. Wallace, Colchester; Mr. C. S. Webber, London; Mr. Braithwaite, Newcastle; Mr. Read, New South Wales; Mr. Cole, Dunedin, Otago; Dr. Williams, Dieppe; Dr. Barclay, Leicester; Mr. Robinson, Dublin; Mr. Haslewood; Dr. Jervis, London; Mr. R. Hunter; Mr. Stickland, Portsmouth; Dr. Jervis, London; Mr. Brownlie; Mr. Abrath, Sunderland; Mr. Park, London; Mr. Lakin, Leicester; Mr. Lawson Tait, Birmingham; Dr. Poole, London; Mr. John Jack, R.N.; Mr. T. P. Morgan, London; Mr. W. J. Scott; Mr. F. Paul, Guy's Hospital; Dr. Mackintosh, Chesterfield; Messrs. Maclachlan and Stewart, Edinburgh; Dr. C. West, London; Mr. Groves, London; Mrs. Webb, London; Mr. Phillips; Mrs. Julia West, Gravesend; Mrs. Downing, London; Mr. A. Churchill, London; Dr. R. Coales, London; Mr. Maxfield, Pontefract; Dr. Nesbitt, Rovereay; Mr. Soars, Woodhall Spa; Mr. Holden, Liverpool; Mr. Dicey, Northampton; Mr. Bunny, Dumfries; Mr. Gaffney, Stow-on-the-Wold; Dr. Smith, Kilburn; Mr. Green, Tetbury; Dr. Pendleton, Liverpool; Mr. Carnath, Salford; Mr. Fenton, Coventry; Mr. Bradbury, Frome; Mr. Brend, Brighton; Mr. Palmer, Nayland; Mr. Greenwood, Liverpool; Dr. Maul, Southampton; Mr. Brown, Huddersfield; Mr. Scott, Bournemouth; Mr. Nind, Torquay; Messrs. Scott and Glover, Edinburgh; Mr. Moody, Ludlow; Dr. Collins, Sherborne; Mr. Longstaff, Wandsworth; Mr. Howe, Marple; Mr. Macdonald, Manchester; Mr. Walker, Glasgow; Mr. Jessett, Erith; Mr. Birt, Stourbridge; R. M. J. L.; A. G.; The President of the College of Physicians; H.; A Subscriber; M.D.; J. M.; M.R.C.S.; &c. &c.

LETTERS, each *with enclosure*, are also acknowledged from—Mr. Davidson, Carlisle; Mr. Franklin, Newcastle; Mr. Jefferys, Manchester; Dr. Bottle, Birmingham; Mr. Shekleton, Blaenavon; Dr. Chambers, Inverness; Mr. James, Aberamon; Mr. Wilson, Ramsgate; Mr. Knott, Worcester; Dr. Isles, Watford; Mr. Brown, Coventry; Mr. Drummond, Woodhall; Mr. Anderson, Dalston; Mr. Brunton, Greenock; Mr. Tedswell, Stockton; Dr. Gent, Brill; Mr. Layton, Blaydon-on-Tyne; Mr. Miller, Nottingham; Mr. Walker, Stonham; Mr. Gregor, Settle; Mr. Barlowe, Birmingham; Dr. Roberts, Sheffield; Mr. Mead, Falmouth; Mr. Gardener, Durham; Mr. De'Ath, Buckingham; Mr. Brooks, Silverdale; Mr. Wilson, Ventnor; Dr. M'Bride, Newry; Mr. Young, Rotherham; Mr. Wicks, Abridge; Mr. Griffiths, Shrewsbury; Mr. Philpot, Dulwich; Mr. Weir, Wednesbury; A. R., Wells; Alpha, Stalndrop.

South London Journal, Western Morning News, Cork Constitution, Liverpool Daily Post, Manchester Guardian, Surrey Advertiser, Isle of Man Times, North Cheshire Herald, Huddersfield Daily Chronicle, Kensington News, Pembrokeshire Advertiser, East London Observer, Northampton Herald, Welshman, Newcastle Daily Chronicle, and *Halifax Times* have been received.

METEOROLOGICAL READINGS

(Taken by Steward's Instruments).

THE LANCET OFFICE, JUNE 11TH, 1874.

Date.	Barometer reduced to Sea Level, and 32° F.	Direction of Wind.	Wet Bulb.	Dry Bulb	Solar Radia. in Vacuo	Max. Temp. Shade	Min. Temp.	Rain-fall.	Remarks at 8 A.M.
June 5	30·37	W.	57	64	114	83	50	...	Fine
„ 6	30·14	N.E.	62	66	109	77	59	...	Fine
„ 8	30·27	E.	55	60	108	74	46	0·64	Fine
„ 9	30·16	E.	53	64	108	81	51	...	Fine
„ 10	30·17	W.	60	65	105	73	54	...	Fine
„ 11	30·25	W.	51	58	...	...	45	...	Fine

Medical Diary for the ensuing Week.

Monday, June 15.

ROYAL LONDON OPHTHALMIC HOSPITAL, MOORFIELDS.—Operations, 10½ A.M. each day, and at the same hour.
ROYAL WESTMINSTER OPHTHALMIC HOSPITAL.—Operations, 1½ P.M. each day and at the same hour.
GUY'S HOSPITAL.—Operations, 1½ P.M., and on Friday at the same hour.
ST. MARK'S HOSPITAL.—Operations, 9 A.M. and 2 P.M.
METROPOLITAN FREE HOSPITAL.—Operations, 2 P.M.
ST. PETER'S HOSPITAL.—3 P.M. Expected Operation: Lithotrity.
ROYAL COLLEGE OF SURGEONS OF ENGLAND.—4 P.M. Prof. T. Holmes, "On the Surgical Treatment of Aneurism in its various Forms."

Tuesday, June 16.

WESTMINSTER HOSPITAL.—Operations, 2 P.M.
NATIONAL ORTHOPÆDIC HOSPITAL.—Operations, 2 P.M.
WEST LONDON HOSPITAL.—Operations, 3 P.M.

Wednesday, June 17.

MIDDLESEX HOSPITAL.—Operations, 1 P.M.
ST. MARY'S HOSPITAL.—Operations, 1½ P.M.
ST. BARTHOLOMEW'S HOSPITAL.—Operations, 1½ P.M., and on Saturday at the same hour.
ST. THOMAS'S HOSPITAL.—Operations, 1½ P.M.
KING'S COLLEGE HOSPITAL.—Operations, 2 P.M., and on Saturday at 1½ P.M.
GREAT NORTHERN HOSPITAL.—Operations, 2 P.M.
UNIVERSITY COLLEGE HOSPITAL.—Operations, 2 P.M., and on Thursday at the same hour.
LONDON HOSPITAL.—Operations, 2 P.M.
SAMARITAN FREE HOSPITAL FOR WOMEN AND CHILDREN.—Operations, 2½ P.M.
ROYAL COLLEGE OF SURGEONS OF ENGLAND.—4 P.M. Prof. T. Holmes, "On the Surgical Treatment of Aneurism in its various Forms."

Thursday, June 18.

ROYAL ORTHOPÆDIC HOSPITAL.—Operations, 2 P.M.
CENTRAL LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M., and on Friday at the same hour.

Friday, June 19.

ROYAL SOUTH LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M.
ROYAL COLLEGE OF SURGEONS OF ENGLAND.—4 P.M. Prof. T. Holmes, "On the Surgical Treatment of Aneurism in its various Forms."
MEDICAL MICROSCOPICAL SOCIETY.—8 P.M. Mr. J. Needham, "On Osteo-Sarcoma."

Saturday, June 20.

HOSPITAL FOR WOMEN Soho-square.—Operations, 9½ A.M.
ROYAL FREE HOSPITAL.—Operations, 9 A.M. and 3 P.M.
CHARING-CROSS HOSPITAL.—Operations, 3 P.M.

NOTICE.

In consequence of THE LANCET being frequently detained by the Post Office when posted for places abroad *more than eight days after* publication, subscribers and others are reminded that such copies can only be forwarded as book packets, and *prepaid* as such.

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